

CURRICULUM VITAE

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RESIDENCE TELEPHONE: 613-825-3730

CITIZENSHIP: Canadian

LANGUAGES: English, French, Chinese

DATE & PLACE OF BIRTH: March 19, 1947, Hong Kong

GENDER: Male

MARITAL STATUS: Married (to Janet Ching-Lap Kwok)

NUMBER OF CHILDREN: Two (son - Christopher; daughter - Jacqueline)

EDUCATION AND DEGREES CONFERRED:

B.S. (Cum Laude) : Chemistry, Bemidji State University, Minnesota, U.S.A. (1967-1971)

M.S. : Biochemistry, University of Iowa, Iowa, U.S.A. (1971-1973).
Mentor: Dr. Stanley Korenman.

Thesis: "Isolation and Partial Characterization of a Protein Inhibitor of Cyclic AMP-dependent Protein Kinase in Bovine Uteri."

Ph.D. : Pharmacology, University of Ottawa, Canada (1973-1976).
Mentor: Dr. Radhey L. Singhal.

Thesis: "Modulation of Cyclic AMP Metabolism in the Prostate Gland."

PROFESSIONAL TRAINING:

Post-Doctoral Studies: Physiology, Obstetrics and Gynaecology, University of Western Ontario, Canada (1976-1978).
Mentor: Dr. David T. Armstrong
Research Project: "Sex Steroid and Prostaglandin Metabolism in Ovarian Cells.

CURRENT UNIVERSITY APPOINTMENT:

1. Director, Reproductive Biology Unit, Department of Obstetrics and Gynaecology, University of Ottawa, (1980 - present)
2. Professor of Obstetrics & Gynaecology (1989 - present) and of Cellular & Molecular Medicine (1997 - present), University of Ottawa
3. Honorary Professor, Nanjing Medical University, Nanjing, China (2006 – present)
4. Honorary Professor, State Key Laboratory in Reproductive Biology, Institute of Zoology, Chinese Academy of Sciences, Beijing, China (2004 - present)
5. Honorary Professor, Jinan University, Guangzhou, China (1988 - present)

PREVIOUS APPOINTMENTS:

1. Associate Chair, Research, Department of Obstetrics and Gynaecology, University of Ottawa, (1999 - 2003)
2. JSPS Visiting Professor, International Center for Medical Research and Treatment, Kobe University Graduate School of Medicine (2003-2005)
3. Professor of Physiology, University of Ottawa, (1989 - 1997)
3. Associate Professor of Obstetrics & Gynaecology and Physiology, University of Ottawa, (1985-1989)
4. Assistant Professor of Obstetrics & Gynaecology (1983-1985) and of Physiology (1981-1985), University of Ottawa
5. Adjunct Professor, Department of Animal Science, Faculty of Agriculture, McGill University (1990-1995)
6. Honorary Professor, Department of Obstetrics & Gynaecology, University of Hong Kong (1998 - 2000)
7. Director of Research, Ottawa Civic Hospital, (1984-1986)
8. Acting Director of Research, Ottawa Civic Hospital, (1984)

9. Allied Scientist, Ottawa Civic Hospital, (1980-1988)
10. Assistant Research Officer, Division of Biological Sciences, National Research Council of Canada, Ottawa, (1978-1980)
11. Postdoctoral Fellow, Department of Obstetrics and Gynaecology, University of Western Ontario, (1976-1978)
12. Visiting Scientist and Lecturer, Department of Physiology, University of Western Ontario, (1976-1978)
13. Pre-doctoral Trainee of the Medical Research Council of Canada, Department of Pharmacology, University of Ottawa, (1973-1976)
14. Teaching Assistant, Department of Pharmacology, University of Ottawa, (1973-1975)
15. Research and Teaching Assistant, Department of Chemistry, Bemidji State University, Minnesota, U.S.A. (1968-1971)

HONOURS AND AWARDS:

A: Awards and Scholarships:

1. 2008 Award of Excellence in Reproductive Medicine, Canadian Fertility and Andrology Society.
2. 2008 "Outstanding Alumnus", Bemidji State University, Minnesota, USA
3. J. David Grimes Research Career Achievement Award, Ottawa Health Research Institute (November 13, 2005).
4. Japan Society for the Promotion of Science Visiting Professorship, Kobe University School of Medicine, Kobe, Japan (July - September 2003; September – December 2004)
5. University of Ottawa Faculty of Medicine Recognition Award for Outstanding Contributions in Medical Education (November 29, 2002).
6. Best Research Paper presented at the 47th Annual Meeting of the Society for Gynaecologic Investigation (March 22-25, 2000). Paper entitled "*Down-regulation of X-linked Inhibitor of Apoptosis Protein by Adenoviral Antisense Expression Induces Apoptosis in Chemoresistant Human Ovarian Cancer Cells in vitro: A Pivotal role of p53*".
7. Best Gynaecologic Oncology of Canada Research Paper Award at the 55th Annual Meeting of the Society of Obstetricians and Gynaecologists of Canada. (June 25-29,1999). Paper entitled "*X-Linked Inhibitor of Apoptosis Protein in Human Ovarian Cancer: Chemoresistance and a Possible Target for Gene Therapy*".

8. Award of Excellence, Faculty of Medicine, University of Ottawa (1996), in recognition of outstanding achievement or contribution to the Faculty in research, scholarship, education, or other contributions to the life of the Faculty.
9. The Cornelia Post Channing Award for best research paper presented at the XIth Ovarian Workshop: Ovarian Cell Growth, Apoptosis and Cancer, London, Ontario (July 24-26, 1996): "*Transforming Growth Factor α Inhibits Apoptosis in Hen Granulosa Cells*".
10. Award of Excellence, Canadian Council on Animal Care (1992), in recognition of exemplary animal care standards, conditions and practices at the Ottawa Civic Hospital.
11. The Wyeth-Canadian Investigators of Reproduction Award for best research paper at the 48th Annual Meeting of the Society of Obstetricians and Gynaecologists of Canada. (June 8-13, 1992) "*Increase in Intracellular pH in Hen Granulosa Cells following Epidermal Growth Factor Stimulation: Possible Involvement of Protein Kinase C and Tyrosine Kinase*".
12. Research Associateship, Division of Biological Sciences, National Research Council of Canada, Ottawa, Ontario, Canada (1978-1980).
13. The Endocrine Society Travel Award, VI International Congress of Endocrinology (February 10-16, 1980), Melbourne, Australia.
14. CALAS Travel Award, Canadian Association for Laboratory Animal Science Convention 1976 (June 6-9, 1976), Toronto, Ontario, Canada.
15. ASPET Travel Award, 1976 Fall Meeting of the American Society for Pharmacology and Experimental Therapeutics (August 15-19), New Orleans, Louisiana, USA.
16. Recipient of the Research on Drug Abuse Summer Scholarships, Health and Welfare, Canada (1974-1975).
17. Placed on Academic Dean's Honour Roll, Bemidji State University, Bemidji, Minnesota, USA (1967-1971).
18. Recipient of the Chemical Rubber Company Award, Bemidji State University, Bemidji, Minnesota, USA (1967-1968)

B. Invited Lectures and Presentations (1982-Present):

1. International & National Conferences

1. “GDF-9-mediated regulation of rat preantral follicular growth by FSH and Thyroid Hormone” Fourth Japan-Canada Bilateral Workshop on Human reproduction & reproductive Biology, Hirosaki, Japan, July 31 - August 2, 2007.
2. “Regulation of Ovarian Follicular Development: Lessons Learned from in vitro Models and Clinical Implications” Conjoint Annual Meeting of the Chinese Society of Reproductive Medicine (CSRМ) and the Chinese Society of Reproductive Biology (CSRB), 2007” Hangzhou, Zhejiang Province, China on April 7-8, 2007.
3. “Ovarian Follicle Cultures: Strategy for the Assessment of Follicle Health and Function”. 14th World Congress on *In Vitro* Fertilization and 3rd World Congress on *In Vitro* Maturation, Montreal, PQ, September 15-19, 2007
4. “Dysregulation of Cisplatin-induced, p53-dependent FLIP Ubiquitination by Akt in Ovarian Cancer Cells”. Second Sino-Canada Bilateral Workshop on Reproductive Health Research, Ottawa, Canada, October 19-21, 2007.
5. “Deciphering the Molecular and Cellular Mechanisms of Chemoresistant Ovarian Cancer”. 12th World Congress of Gynecological Endocrinology, Florence, Italy, March 2-5, 2006.
6. “A New Perspective on the Molecular and Cellular Mechanisms of Chemoresistance in Ovarian Cancer” 6th Sapporo International Symposium on Ovarian Function, Otaru, Japan, August 5-6, 2006.
7. “Gonadotrophic and Intra-ovarian Regulation of Ovarian Follicular Growth and Atresia”. 11th McGill International Symposium on Reproductive Endocrinology & Infertility and Women’s Health, Montreal, October 4-6, 2006.
8. “China-Canada Bilateral Program on Reproductive Health Research: Past Present and Future”. 52nd Annual Meeting of the Canadian Fertility and Andrology Society, Ottawa, Canada on November 15-18, 2006.
9. “Dysregulation of Apoptotic pathways: A Determinant of Chemoresistance in Ovarian Cancer”. International Symposium of Integrative Zoology, Beijing, China October 17-22, 2006.
10. “Intra-Ovarian Regulation of Ovarian Follicular Development and Atresia”. International Symposium of Integrative Zoology, Beijing, China October 17-22, 2006.
11. “Expression and Role of Nodal/Alk7 System in the Regulation of Ovarian Follicular Development and Atresia”. Mini-Symposium on Reproductive Biology, State Key Laboratory of Reproductive Biology, Chinese Academy of Sciences, Beijing, China, October 20, 2006.
12. “Intra-Ovarian Regulation of Ovarian Follicular Development and Atresia”. Joint Lecture of the Chinese Society of Reproductive Medicine and the Shanghai Society of Family Planning and Reproductive Health, Shanghai, China, October 23, 2006

13. *“Sino-Canada Bilateral Program on Reproductive Health Research”* The First Sino-Canada Bilateral Workshop in Reproductive Health Research, Beijing (November 14-18, 2005)
14. *“Canada-Japan Bilateral Exchange Program in Human Reproduction and Reproductive Biology: Past, Present and Future”* The 9th Canada-Japan Joint Committee on S&T Cooperation, Ottawa (October 12, 2005)
15. *“Canada-Japan Bilateral Exchange Program in Human Reproduction and Reproductive Biology: Past, Present and Future”* International Seminar on Multilateral Collaboration of Medical Research and Education, Kobe, Japan (March 26, 2005).
16. *“Gonadotropic Regulation of Ovarian Follicular Development and Atresia: Cell-Cell Interactions and Cell Signaling”*. Invited Speaker, 50th Annual Meeting of the Canadian Fertility and Andrology Society, Jasper, Alberta (November 24-27, 2004)
17. *“Ovarian Cancer Signals and Cell Survival”*. Invited Speaker, XVth Ovarian Workshop “The Ovary: Signaling Mechanisms Regulating Development and Dysfunction” Vancouver, British Columbia (July 29-31, 2004)
18. *“Chemosensitivity in Ovarian Cancer: A Matter of Life, Death or Immortality?”* Invited Symposium Speaker, International Symposium on Epigenetics and Regenerative Medicine, Vedbaek, Denmark (June 22-23, 2004).
19. *“Chemosensitivity in Ovarian Cancer: A Matter of Life, Death or Immortality?”* Invited Workshop Speaker, Canadian Workshop on Human Reproduction and Reproductive Biology, Ottawa (May 3-4, 2004)
20. *“Molecular Mechanisms of Chemoresistance in Human Ovarian Cancer”* Invited Symposium Speaker, Symposium on Tissue Remodelling: Growth, Apoptosis and Differentiation, Tainan, Taiwan (October 21-22, 2002)
21. *“Apoptosis in the Ovary: X-linked Inhibitor of Apoptosis Protein Expression as a Determinant of Granulosa Cell Fate and Follicle Destiny”*. Invited Symposium Speaker, Annual Taiwan-Hong Kong Physiology Symposium, Kaohsiung, Taiwan (October 19-20, 2002).
22. *“Chemoresistance in Ovarian Cancer: Role and Manipulation of the X-linked Inhibitor of Apoptosis Gene”* Invited Speaker, Symposium on “Ovarian Function: Pharmacological Interventions”, International Union of Pharmacology – XIV World Congress of Pharmacology, San Francisco, California (July 7-12, 2002)
23. *“Role and Regulation of the PI-3 Kinase/Akt Pathway in Chemoresistance of Human Ovarian Cancer”*. Invited Speaker, Symposium on “Mechanisms of Drug Resistance: New Developments”, 17th Meeting of the European Association for Cancer Research, Granada, Spain (June 8-11, 2002)
24. *“Apoptosis in the Ovary: X-linked Inhibitor of Apoptosis Protein Expression as a Determinant of Granulosa Cell Fate and Follicle Destiny”* Invited Speaker, NICHD Apoptosis in Male Reproductive Systems Workshop, NIH, Bethesda, Maryland (March 21 – 22, 2002)
25. *“Regulation of Follicular Development and Atresia: Assessment by Follicular Culture”*. Invited speaker, 47th Annual Meeting of the Canadian Fertility and Andrology Society, Whistler, British Columbia (October 3-6, 2001)

26. *“Role and Gonadotropin Regulation of X-linked Inhibitor or Apoptosis Protein Expression during Ovarian Follicular Development and Atresia.”* Invited speaker, 17th Annual Meeting of the European Society of Human Reproduction and Embryology, Lausanne, Switzerland (July 1–4, 2001).
27. *“Dissecting the Role and Regulation of X-linked Inhibitor of Apoptosis Protein in Chemoresistance in Human Ovarian Cancer Cells.”* Invited speaker, Neurogenes Symposium, Vancouver, BC (March 26-27, 2001)
28. *“X-linked Inhibitor of Apoptosis Protein in Human Ovarian Cancer: Possible Role in Chemoresistance and Target for Gene Therapy”.* Symposium speaker, 33rd Annual Meeting of the Society for the Study of Reproduction, Madison, Wisconsin (July 15-18, 2000).
29. *“X-linked Inhibitor of Apoptosis Protein in Human Ovarian Cancer: Role in Chemoresistance and Possible Target for Gene Therapy.* Plenary Speaker, First International Huaxia Congress of Endocrinology, Beijing, China (October 17-21, 1999).
30. *“Life and Death Decisions of the Granulosa Cell: Cellular Determinants of Ovarian Follicular Development and Atresia”* Plenary Speaker, Annual Meeting of the Japan Society of Animal Reproduction, Sendai, Japan (September 28, 1999).
31. *“Chemoresistance in Human Ovarian Cancer: Possible Role of Inhibitor of Apoptosis Proteins”* Symposium Speaker, IV Sapporo International Symposium on Ovarian Function, Sapporo, Hokkaido, Japan (August 8, 1998).
32. *“Ovarian Follicular Development and Atresia: Life and Death Decisions of the Granulosa Cells”* Symposium Speaker, IV Sapporo International Symposium on Ovarian Function, Sapporo, Hokkaido, Japan (August 7, 1998)
33. *“Molecular and Cellular Basis of Ovarian Apoptosis”* Symposium Speaker, 7th International Symposium of the Society for the Chinese Bioscientists of America, Toronto, Ontario (July 6-11, 1997).
34. *“Apoptosis and Ovarian Cancer”* Symposium Speaker, 43rd Annual Meeting of the Canadian Fertility and Andrology Society, Niagara-on-the-lake, Ontario (September 25-27, 1997).
35. *“Molecular Mechanisms of Ovulation”*, Invited Speaker, Tenth World Congress on *In Vitro* Fertilization and Assisted Reproduction, Vancouver, British Columbia (May 24-28, 1997).
36. *“Reciprocal Expression of 'Cell Death' and 'Cell Survival' Genes in the Induction of Ovarian Apoptosis: A Pivotal Role of the Gonadotropin”*, Invited Speaker, International Meeting on Gastroenterology, Endocrinology and Reproduction, University of Hong Kong, Hong Kong (December 9-10, 1996)
37. *“Regulation of Ovarian Follicular Development: Basic Concepts and Clinical Implications”* Symposium Speaker, 42nd Annual Meeting of the Canadian Fertility and Andrology Society, Lake Louise, Alberta (November 21-23, 1996)
38. *“Molecular and Cellular Mechanisms of Ovarian Apoptosis”*, Invited Conference Speaker, The MO-KAN Conference, University of Kansas Medical Centre, Kansas City, Kansas (November 9, 1996)

39. *"The Possible Involvement of DNase I in Ovarian Apoptosis"* Symposium speaker, International Symposium on Cell Death in Reproductive Physiology, Chicago, Illinois, (April 11-14, 1996).
40. *"Calcium Signalling in Avian Granulosa Cells During Ovarian Follicular Development"*, Symposium Speaker, Sixth International Symposium on Avian Endocrinology, Lake Louise, Alberta (March 31 - April 5, 1996).
41. *"Control of Follicular Development and Ovulation: from Basic Concepts to Clinical Applications"* Symposium Speaker, First Annual Scientific Meeting of the Middle East Fertility Society, Broummana, Lebanon (May 25-28, 1994)
42. *"Intraovarian Regulators of Follicular Development and Ovulation: GHRH on Follicular Wall Remodelling"* Invited Workshop Discussant, Canadian Workshop on Human Reproduction and Reproductive Biology "From Bench to Bedside" (April 25-29, 1994)
43. *"Mechanism of Steroid Hormone Action in Reproductive and Non-reproductive Tissues: Non-genomic Action of Estrogen"* Invited Workshop Discussant, Canadian Workshop on Human Reproduction and Reproductive Biology "From Bench to Bedside" (April 25-29, 1994)
44. *"Scientific Merit Assessment"* Invited Speaker, Canadian Council on Animal Care 1994 National Workshop on Animal Care Committees *"Animal Care Committees: Role and Responsibilities"*, Ottawa (February 6, 1994)
45. *"Intracellular Calcium and pH Regulation in Granulosa Cells"* Conference Speaker. NICHD Conference on "Emerging Roles of the Cytoskeleton in Reproductive Endocrinology", Fogarty International Center, NIH, Bethesda, Maryland (July 13-14, 1993)
46. *"Intra-ovarian factors in the control of ovulation"* Symposium Speaker. Special Symposium on "Eicosanoids and Related Compounds in Reproduction." 8th International Conference on Prostaglandins and Related Compounds, Montreal, Quebec (July 27-31, 1992)
47. *"Regulation of Intracellular pH in Chicken Granulosa Cells by Epidermal Growth Factor"* Symposium Speaker, Symposium on Reproductive Cell Biology: Ionic Fluxes in Cells of Reproductive Systems. 24th Annual Meeting of the Society for the Study of Reproduction, Vancouver, British Columbia (July 26-31, 1991)

2. Institutions in United States and Overseas

48. *"Interaction of Akt and p53 in the Regulation of Cisplatin Sensitivity in Ovarian Cancer Cells"* Invited Seminar Speaker, Department of Biochemistry, Temple University, Philadelphia, PA, USA (January 25, 2008).
49. *"Improving Woman's Health through Research Achievements: The Importance of Basic Research"* Invited Seminar Speaker, State Key Laboratory in Reproductive Biology, Institute of Zoology, Chinese Academy of Sciences, Beijing, China, (Jan 10, 2006).
50. *"The Regulation of Ovarian Follicular Development and Atresia: What can we learn from in vitro models?"* Reproductive Medical Research Center, Shandong Medical University, Shandong Provincial Hospital, Jinan, China (Jan 12, 2006).

51. *“Deciphering the Molecular Mechanisms of Chemoresistance in Ovarian Cancer”* Guangxi Tumour Hospital, Nanning, China (Jan 15, 2006).
52. *“The Regulation of Ovarian Follicular Development and Atresi”* Nanjing Medical University, Nanjing, China (Jan 16, 2006).
53. *“Endocrine and Paracrine Regulation of Ovarian Follicular Development and Atresia”*. Invited Seminar Speaker, State Key Laboratory in Reproductive Biology, Institute of Zoology, Chinese Academy of Sciences, Beijing, China, (April 6, 2005).
54. *“Chemoresistant Ovarian Cancer: The Love Triangle of Xiap, Akt and p53”*. Invited Seminar Speaker, Department of Physiology, Chinese University of Hong Kong, Shatin, Hong Kong (March 30, 2005).
55. *“Akt-meidated Chemoresistance in Ovarian Cancer: Downregulation of Cisplatin-induced, p53-dependent Mitochondrial Smac Release and Apoptosis”*. Invited Seminar Speaker, Laboratory of Animal Reproduction, Faculty of Agriculture, Tohoku University, Miyagi, Japan (December 24, 2004)
56. *“Regulation of Chemosensitivity of Ovarian Cancer: Cell Death and Cell Survival Mechanisms”*. Invited Seminar Speaker, Department of Pathology, University of South Florida, Tampa, Florida (June 9, 2004)
57. *“Chemosensitivity in Ovarian Cancer: Molecular and Cellular Determinants”*. Invited Seminar Speaker, Department of Physiology, Chinese University of Hong Kong, Hong Kong (May 18, 2004).
58. *“Gonadotropic Regulation of Ovarian Follicular Development and Atresia”* Invited Seminar Speaker, Department of Obstetrics and Gynecology, Nanjing Medical University, Nanjing, China (May 15, 2004)
59. *“Molecular and Cellular Basis of Chemoresistance in Ovarian Cancer”* Invited Seminar Speaker, Department of Obstetrics and Gynecology, Nanjing Medical University, Nanjing, China (May 15, 2004)
60. *“Chemosensitivity in Ovarian Cancer: A Matter of Life, Death or Immortality?”* Invited Seminar Speaker, State Key Laboratory on Reproductive Biology, Institute of Zoology, Chinese Academy of Science, Beijing, China (May 11, 2004)
61. *“Towards a Better Understanding of Placental Health and Diseases: A Molecular and Cellular Perspective”*. Invited Seminar Speaker, State Key Laboratory on Reproductive Biology, Institute of Zoology, Chinese Academy of Science, Beijing, China (May 11, 2004)
62. *“Chemosensitivity in Ovarian Cancer: A Matter of Life, Death or Immortality?”* Invited Seminar Speaker, Department of Obstetrics and Gynecology, First Hospital of Beijing University, Beijing, China (May 10, 2004)
63. *“Towards a Better Understanding of Placental Health and Diseases: A Molecular and Cellular Perspective”*. Invited Seminar Speaker, Department of Obstetrics and Gynecology, First Hospital of Beijing University, Beijing, China (May 10, 2004)
64. *“Life, Death and Immortality: New Insights on the Molecular and Cellular Basis of Chemoresistance in Ovarian Cancer”*. Invited Seminar Speaker, Department of Obstetrics

- and Gynecology, Kobe University Graduate School of Medicine, Kobe, Japan (September 26, 2003).
65. *"Forging a Research Partnership with Aginomoto Co. Inc: A Win-Win for All"*. Invited Speaker, Ajinomoto Co. Inc., Tokyo, Japan (September 15, 2003).
 66. *"Molecular and Cellular Basis of Chemoresistance in Ovarian Cancer: Possible role of Xaip, Akt and p53"*. Invited Seminar Speaker, Department of Obstetrics and Gynecology, Hokkaido University Graduate School of Medicine, Sapporo, Japan (September 11, 2003).
 67. *"New Insights into the Cellular Mechanism of Gonadotropin Action in the Control of Ovarian Follicular Growth and Atresia"*. Invited Seminar Speaker, Department of Obstetrics and Gynecology, Fukui Medical University Graduate School of Medicine, Fukui, Japan (September 5, 2003).
 68. *"Deciphering the Molecular Mechanism of Chemoresistance in Ovarian Cancer"* Invited Seminar Speaker, Department of Obstetrics and Gynecology, Gunma University Graduate School of Medicine, Maebashi, Japan (September 2, 2003).
 69. *"New Insights into the Cellular Mechanism of Gonadotropin Action in the Control of Ovarian Follicular Growth and Atresia"*. Invited Seminar Speaker, Department of Obstetrics and Gynecology, Gunma University Graduate School of Medicine, Maebashi, Japan (September 1, 2003).
 70. *"New Perspectives in the Regulation of Ovarian Follicular Development and Atresia"*. Invited Seminar Speaker, Laboratory of Animal Reproduction, Graduate School of Agricultural Science, Tohoku University, Sendai, Japan (August 18, 2003).
 71. *"Regulation of Ovarian Follicle Fate: New Insights From In Vitro Models"*. Invited Seminar Speaker, Department of Obstetrics and Gynecology, Hirosaki University School of Medicine, Hirosaki, Japan (August 15, 2003).
 72. *"PAL31 Expression in the Ovarian Cells"*. Invited Seminar Speaker, Department of Animal Resource Science and Veterinary Medicine, University of Tokyo, Tokyo, Japan (August 5, 2003).
 73. *"Towards a Better Understanding of Placental Health and Diseases: A Molecular and Cellular Perspective"*. Invited Seminar Speaker, Department of Obstetrics and Gynecology, Kobe University Graduate School of Medicine, Kobe, Japan (July 10, 2003).
 74. *"Gonadotropic Regulation of Ovarian Follicular Development and Atresia: Lessons from In Vitro Models"* Invited Seminar Speaker, Department of Neurobiology and Physiology, Northwestern University, Evanston (January 6, 2003)
 75. *"The Role of Xiap and the PI3-Kinase Cell Survival Pathway in Chemoresistant Ovarian Cancer"* Invited Seminar Speaker, R.H. Lurie Comprehensive Cancer Centre, Evanston (January 7, 2003)
 76. *"X-linked Inhibitor of Apoptosis Protein: Role in Chemoresistant Ovarian Cancer and Potential Therapeutic Target"* KCI Round Table Seminar Speaker, Kansas Cancer Institute and the Center for Reproductive Sciences at the University of Kansas Medical Center, Kansas City (December 10, 2002).

77. *"Life and Death Decisions in the Ovary: What is New in the Mechanism of Action of FSH?"*. Invited Seminar Speaker, NIH Training Program In Mammalian Reproduction and Department of Obstetrics, Gynecology and Reproductive Sciences, University of Texas at Houston (September 25, 2002).
78. *"Cell Death and Cell Survival in the Control of Ovarian Follicular Development and Atresia: The Role of FSH in the Regulation of Xiap Expression"*. Invited Seminar Speaker, Department of Physiology & Biophysics and Obstetrics & Gynecology, University of Illinois at Chicago (August 27, 2002).
79. *"New Perspectives in the Gonadotropic Regulation of Ovarian Follicular Development and Atresia"* Invited Speaker, Department of Obstetrics and Gynecology, University of Utah (July 12, 2002).
80. *"Chemoresistance in Ovarian Cancer: Possible Involvement of X-linked Inhibitor of Apoptosis Protein and the PI 3 Kinase/Akt Pathway"* Invited Speaker, Division of Gastroenterology, Department of Medicine, University of Washington (July 10, 2002).
81. *"Role and Regulation of the PI-3 Kinase/Akt Pathway in Chemoresistance of Human Ovarian Cancer"*. Invited Seminar Speaker, Centro Nacional de Investigaciones Oncológicas, Madrid, Spain (June 13, 2002)
82. *"Role of X-Linked Inhibitor of Apoptosis Protein in Chemoresistance in Ovarian Cancer: Possible Involvement of the Phosphoinositide 3-Kinase/Akt Pathway"*. Invited Speaker, Department of Physiology, The Chinese University of Hong Kong (May 13, 2002).
83. *"New Insights into the Mechanism of action for FSH in the regulation of ovarian follicular development and atresia"*. Invited Speaker, Department of Obstetrics & Gynaecology, Gunma University School of Medicine, Maebashi , Gunma, Japan (May 10, 2002).
84. *"Role and Gonadotropic Regulation of X-Linked Inhibitor of Apoptosis Protein in the Control of Follicular Development and Atresia"*. Invited Speaker, Department of Obstetrics & Gynaecology, University of Tokyo, Tokyo, Japan (May 7, 2002).
85. *"Role of X-Linked Inhibitor of Apoptosis Protein in Chemoresistance in Ovarian Cancer: Possible Involvement of the PI 3-Kinase/Akt Pathway"*. Invited Speaker, Department of Obstetrics & Gynaecology, Morehouse School of Medicine, Atlanta, GA. (April 11, 2002).
86. *"Cell Survival Regulation in Chemoresistant Human Ovarian Cancer Cells: Role of Anti-Apoptotic Proteins and Therapeutic Implications"*, Invited speaker, Department of Gastrointestinal Medical Oncology, University of Texas M.D. Anderson Cancer Center, Houston, Texas (February 2, 2001).
87. *"Molecular and Cellular Basis of Ovarian Follicular Atresia"* Invited Seminar Speaker, Department of Life Science, Hanyang University, Seoul, South Korea (October 25, 2000).
88. *"Cell Death and Survival Signalling in Human Ovarian Cancer Cells"* Invited Seminar Speaker, Department of Animal Resource Science, University of Tokyo, Tokyo, Japan (October 19, 2000).
89. *"Cisplatin-induced Focal Adhesion Kinase Processing in Human Ovarian Cancer: Significance in Cell Fate Determination"*. Invited Seminar Speaker, Department of Pathology, University of South Florida, Tampa, FL. (May 5, 2000).

90. *“Chemoresistance in Human Ovarian Cancer: Possible Role of X-linked Inhibitor of Apoptosis Protein”*. Invited Grand Rounds Speaker, Department of Pathology, University of South Florida, Tampa, Fl. (May 4, 2000).
91. *“Regulation of Ovarian Follicular Development and Atresia: New Concepts and Clinical Implications”*. Invited Grand Rounds Speaker, Department of Obstetrics & Gynaecology, University of South Florida, Tampa, Fl. (May 3, 2000).
92. *“Regulation of cell death and cell survival gene expression during ovarian follicular development and atresia”*. Invited Speaker, Department of Obstetrics & Gynaecology, Morehouse School of Medicine, Atlanta, GA. (April 12, 2000).
93. *“Regulation of XIAP Expression and Apoptosis in Chemoresistant Ovarian Cancer Cells”* Invited Speaker, Department of Molecular Oncology, The University of Texas MD Anderson Cancer Centre, Houston, Texas (December 2, 1999).
94. *“Regulation of Apoptosis in Chemoresistant Ovarian Cancer Cells: Biological Basis and Clinical Implications”* Invited Speaker, Departments of Physiology and Anatomy, Chinese University of Hong Kong, Hong Kong (October 21, 1999).
95. *“Revisiting the Cellular and Molecular Basis of Gene Therapy for Cisplatin-Resistant Human Ovarian Cancer”* Invited Speaker, Department of Obstetrics & Gynaecology, University of Hong Kong, Queen Mary Hospital, Hong Kong (October 13, 1999).
96. *“Gene Regulation and Apoptosis in Human Ovarian Cancer”* Invited Speaker, Science Research Centre, Foshan University, Guangzhou, China (September 30, 1999)
97. *“Molecular and Cellular Regulation of Ovarian Follicular Development and Atresia”* Seminar Speaker, Department of Obstetrics & Gynaecology, Gunma University School of Medicine, Maebashi, Gunma, Japan (March 16, 1999)
98. *“Cisplatin-induced Focal Adhesion Kinase Processing in Human Ovarian Cancer: Significance in Cell Fate Determination”* Seminar Speaker, Department of Obstetrics & Gynaecology, Fukui Medical University, Fukui, Japan (March 18, 1999)
99. *“Inhibitor of Apoptosis Proteins in Chemoresistant Human Ovarian Cancer: A Potential Target Site for Gene Therapy”* Seminar Speaker, Department of Obstetrics & Gynaecology, Kobe University School of Medicine, Kobe, Japan (March 24, 1999)
100. *“Life, Death and Immortality: The Biologic Role of Inhibitor of Apoptosis Proteins in Human Ovarian Cancer”* Seminar Speaker, Department of Veterinary Physiology, University of Tokyo, Tokyo, Japan (August 18, 1998).
101. *“Human Ovarian Cancer and Chemoresistance: New Thoughts on an Old Problem”* Seminar Speaker, Department of Obstetrics and Gynaecology, University of Hong Kong, Queen Mary Hospital, Hong Kong (July 30, 1998).
102. *“Life and Death Decisions in the Granulosa Cell: Who is in charge?”* Seminar Speaker, Department of Obstetrics and Gynaecology, University of Hong Kong, Tsan Yuk Hospital, Hong Kong (July 29, 1998).
103. *“Molecular and Cellular Basis of Ovarian Follicular Atresia”* Seminar Speaker, Department of Physiology and Pharmacology, University of South Dakota, Vermillion, South Dakota (April 17, 1998).

104. *"Life and Death Decisions of the Granulosa Cells: Toeing the Line for Ovarian Follicular Growth and Atresia"* Seminar Speaker, Department of Obstetrics and Gynaecology, University of Minnesota, Minneapolis, Minnesota (April 20, 1998).
105. *"Life and Death Decision: A Putative Role of Prostaglandins"* Seminar Speaker, Women's Research Institute, University of Kansas School of Medicine, Wichita, Kansas (November 11, 1996).
106. *"Role and Regulation of Prostaglandin Synthesis in Mitogenic Response of Granulosa Cells to TGF β "* Seminar Speaker, Department of Biology, Waseda University, Tokyo, Japan (May 17, 1996).
107. *"Regulation of Cell Proliferation and Tissue Remodelling During Ovarian Follicular Development"* and *"Growth Factors and Cytokines in the Regulation of Ovarian Function"*, Seminar Speaker, Changchun University of Agriculture and Animal Sciences, Changchun, Jilin, Peoples' Republic of China (May 13, 1996).
108. *"Calcium Signalling in Granulosa Cells"* Seminar Speaker, Institute of Developmental Biology, Academia Sinica, Beijing, Peoples' Republic of China (May 9, 1996).
109. *"Regulation of Ovarian Cell Apoptosis During Follicular Atresia"* Seminar Speaker, Cell Biology Division, Department of Biology, Beijing Normal University, Beijing, Peoples' Republic of China (May 7, 1996).
110. *"Regulation of Ovarian Plasminogen Activator System During Follicular Development"* and *"Molecular and Cellular Basis of Programmed Cell Death During Follicular Atresia"* Seminar Speaker, State Key Laboratory of Reproductive Biology, Academia Sinica, Beijing, Peoples' Republic of China (May 5-10, 1996).
111. *"Role and Regulation of Prostaglandin Synthesis in Mitogenic Response of Granulosa Cells to TGF β "* Seminar Speaker, National Research Institute for Family Planning, Beijing, Peoples' Republic of China (May 8, 1996).
112. *"Expression of Fas Antigen and Fas Ligand and Induction of Apoptosis during Follicular Development and Atresia"* Seminar Speaker, Beijing Medical University, Beijing, Peoples' Republic of China (May 6, 1996).
113. *"Regulation of Granulosa Cell Apoptosis: A Physiological Basis for Ovarian Atresia"* Symposium Speaker, "New Frontiers in Physiological Signals", Annual Physiology Symposium, Chinese University of Hong Kong, Hong Kong (April 26-27, 1996).
114. *"Physiologic Basis of Ovulation Induction"* Seminar Speaker, Department of Obstetrics & Gynaecology, Fukui Medical School, Fukui, Japan (April 22, 1996).
115. *"Dual Role of Prostaglandins in the Regulation of Ovarian Follicular Development and Atresia"*, Invited Speaker for the 1996 Elaine Tso Memorial Lecture, Department of Physiology, University of Hong Kong, Hong Kong (December 3, 1996).
116. *"Paracrine Regulation of Granulosa Cell Proliferation and Apoptosis"* Seminar Speaker, Guangdong International Culture Exchange Centre, Guangzhou, China (October 10, 1995).
117. *"Regulation of Ovarian Follicular Development and Atresia"* Seminar Speaker, Department of Veterinary Physiology, University of Tokyo, Tokyo, Japan (October 13, 1995).

118. "*Signal Transduction Mechanisms in the Ovarian Granulosa Cell*" Seminar Speaker, Department of Physiology, Cornell University (April 15, 1992)
119. "*Hormonal Regulation of Ovarian Steroidogenesis*", "*From Hong Kong to Bemidji to Iowa to Ottawa*" and "*Control of Ovulation: Mechanisms and Implications*" Seminar Speaker, Division of Science and Mathematics, Bemidji State University, Minnesota, U.S.A. (March 19-20, 1990)
120. "*Calcium and the Cytoskeleton in the Gonadotropic Regulation of Granulosa Cell Steroidogenesis*" Seminar Speaker, Laboratory of Reproductive Biology, Institute of Zoology, Academia Sinica, Beijing, China (July 12, 1988)
121. "*Hormonal Control of Ovarian Follicular Development and Ovulation*" Seminar Speaker, Shanghai Institute of Planned Parenthood Research, WHO Collaborating Centre for Research in Human Reproduction, Shanghai, China (July 9, 1988)
122. "*Gonadotropic Regulation of Human Ovarian Estrogen Production*", "*Prostaglandins and Menstrual Disorders*", "*Animal Model for the Study of Mammalian Ovarian Follicular Development and Cell Differentiation*", "*Role of Prostaglandins in the Regulation of Ovulation*", "*The Cytoskeleton, Cell Shape and Ovarian Steroidogenesis*" and "*Calcium and Protein Kinase C in the Regulation of Granulosa Cell Steroid Hormone Production*" - Visiting Professor, Centre for Reproductive Immunology Research, Jinan University, Guangzhou, China (June 29-July 4, 1988)

3. ***Institutions in Canada***

123. "*Life, Death and Immortality: Determinants of Chemoresistance in Ovarian Cancer*" CHUQ-Centre de recherche, L'Hôtel-Dieu de Québec, Québec PQ, Canada, November 16, 2007
124. "*Chemoresistant Ovarian Cancer: Dysregulation of Cisplatin-induced, p53-dependent FLIP Ubiquitination by Akt*" Reproductive and Developmental Sciences Program, Department of Obstetrics and Gynecology, University of British Columbia, Vancouver, BC. December 21, 2007
125. *Life, Death and Immortality: Determinants of Chemoresistance in Ovarian Cancer*. 12th McGill International Symposium on Reproductive Endocrinology & Infertility and Women's Health, Montreal, PQ, September 15, 2007
126. "*Intra-Ovarian Regulation of Ovarian Follicular Development and Atresia*". Research Seminar, Department of Obstetrics and Gynecology, University of British Columbia, Vancouver, BC, Canada, January 24, 2007
127. "*Regulation of Ovarian Follicular Development and Atresia: Basic Concepts to Clinical Applications*". Research Seminar, Department of Obstetrics and Gynecology, McGill University, Montreal, PQ, Canada, September 22, 2006.
128. "*New Perspectives in the Molecular and Cellular Mechanisms of Chemoresistance in Ovarian Cancer*". Obstetrics and Gynecology Grand Rounds, McGill University, Montreal, PQ, Canada, September 21, 2006.

129. *"Life, Death and Immortality: New Insights on the Molecular Basis of Chemoresistance in Ovarian Cancer"* STIRRHS/ISFRSR Conference Series, Department of Obstetrics and Gynecology, Ste-Justine Hospital (December 3, 2003).
130. *"Molecular and Cellular Basis of Chemoresistant Ovarian Cancer: Involvement of X-linked Inhibitor of Apoptosis Protein and Therapeutic Implications"* Obstetrics and Gynecology Grand Rounds, Department of Obstetrics and Gynaecology, McMaster University, Hamilton (May 7, 2003).
131. *"Gonadotropic Regulation of Ovarian Follicular Development and Atresia: New Insights from in vitro Models"* Research Seminar, Department of Obstetrics and Gynaecology, McMaster University, Hamilton (May 7, 2003).
133. *"Chemoresistant Ovarian Cancer: Role and Regulation of XIAP and AKT"*, Seminar Speaker, Centre de Recherche Guy-Bernier, Montreal (April 11, 2003).
134. *"Role of Xiap and Akt in Chemoresistance in Human Ovarian Cancer"*, Seminar Speaker, Department of Biology, York University, Toronto (February 11, 2002).
135. *"Molecular and Cellular Basis of Chemoresistance in Human Ovarian Cancer: an Involvement of X-linked Inhibitor of Apoptosis Protein"* Seminar Speaker, Department of Obstetrics & Gynaecology, University of British Columbia, Vancouver (September 25, 2000).
136. *"Regulation of X-linked Inhibitor of Apoptosis Protein in Chemoresistant Ovarian Cancer Cells: A Novel Strategy for Gene Therapy"* Invited Speaker, Jack Bell Research Centre & The Prostate Centre at the Vancouver General Hospital, Vancouver (December 14, 1999).
137. *"X-linked Inhibitor of Apoptosis Proteins: A Potentially Novel Target for Gene Therapy in Chemoresistant Human Ovarian Cancer"* Gynaecologic Oncology Grand Rounds Speaker, Princess Margaret Hospital, Toronto, Ontario (May 17, 1999).
138. *"Expression of Cell Death and Cell Survival Genes during Cisplatin-induced Apoptosis in Human Ovarian Cancer: Implications in Chemoresistance"* Seminar Speaker, Northeastern Ontario Regional Cancer Centre, Sudbury, Ontario (April 29, 1999).
139. *"Gene Regulation and Apoptosis in Human Ovarian Cancer"* Seminar speaker, Department of Anatomy and Cell Biology, Queen's University, Kingston, Ontario (April 15, 1999).
140. *"Life, Death and Immortality: Implications in Human Ovarian Cancer and New Strategy for Therapy"* Seminar Speaker, Department of Obstetrics & Gynaecology, McGill University, Royal Victoria Hospital, Montreal (December 17, 1998)
141. *"Regulation of Ovarian Follicular Cell Apoptosis"* Grand Rounds Speaker, Department of Obstetrics & Gynaecology, University of Western Ontario, London, Ontario (November 8, 1995).
142. *"Control of Granulosa Cell Proliferation during Ovarian Follicular Development"* Seminar Speaker, The Lawson Research Institute, London, Ontario (November 7, 1995).
143. *"To Live or to Die: A Granulosa Cell Story"* Seminar Speaker, Department of Obstetrics & Gynaecology, University of British Columbia, Vancouver, British Columbia (August 12, 1994)

144. *"Intra-Ovarian Regulation of Ionic Fluxes in Granulosa Cells"* Seminar Speaker, Department of Physiology, University of Western Ontario (February 28, 1994)
145. *"Intra-Ovarian Regulation of Tissue Remodelling and Cell Proliferation During Follicular Development"* Seminar Speaker, The Lawson Research Institute, St. Joseph Hospital, London (February 28, 1994)
146. *"Actions of TGF α during ovarian follicular development: regulation of tissue remodelling and cell proliferation"* Seminar Speaker, Department of Obstetrics & Gynaecology, University of Calgary, Foothills Hospital (November 30, 1992)
147. *"Regulation of ovarian plasminogen activator system by growth factors during follicular development"* Seminar Speaker, Centre de Recherche, Hôpital Maisonneuve-Rosemont, Montreal, Quebec (October 14, 1992)
148. *"Chloride Channel and Steroidogenesis in Granulosa Cells"* Seminar Speaker, Division of Reproductive Endocrinology and Infertility and Research Division, Department of Obstetrics and Gynaecology, University of British Columbia (November 29, 1990)
149. *"Signal Transduction in Ovarian Follicular Cells"* Seminar Speaker, Division of Urology, Royal Victoria Hospital, McGill University (November 8, 1990)
150. *"Calcium Signalling and Cytosolic pH Regulation in the Control of Ovarian Differentiated Function"* Seminar Speaker, Reproductive Biology Research Unit, Department of Obstetrics and Gynaecology, University of Saskatchewan (June 8, 1990)
151. *"Cations and Regulation of Ovarian Follicular Function"* Seminar Speaker, Centre de recherche en reproduction animale, Université de Montreal (January 23, 1990)
152. *"A Multi-disciplinary Approach in the Study of Hormone Signaling Mechanism"* Seminar Speaker, Department of Obstetrics and Gynaecology, University of British Columbia (December 21, 1989)
153. *"Calcium and Cytoskeleton in the Regulation of Ovarian Steroidogenesis"* Reproductive Biology Seminar Speaker, Department of Obstetrics and Gynaecology, McMaster University (March 2, 1988)
154. *"Ovarian Follicular Development and Mechanism of Ovulation"* Invited Speaker, Grand Rounds, Department of Obstetrics and Gynaecology, University of British Columbia (December 18, 1987)
155. *"Regulation of Follicular Development and Cellular Differentiation"* Visiting Endocrine Professor, Department of Obstetrics and Gynaecology, Dalhousie University (December 10-11, 1987)
156. *"Gonadotropic Regulation of Granulosa Cell Steroidogenesis"* Seminar Speaker, Department of Physiology and Biophysics, Dalhousie University (December 9, 1987)
157. *"Calcium: Its Role in the Gonadotropic Regulation of Ovarian Steroidogenesis"* Seminar Speaker, Department of Animal Sciences, Macdonald College, McGill University (October 11, 1984)

158. “*Gonadotropic Regulation of Ovarian Responses*” - Alberta Heritage Foundation for Medical Research Visiting Lecturer, Department of Medicine, University of Alberta, (February 4-5, 1982)

4. *Institutions in Ottawa*

159. “*Chemoresistant Ovarian Cancer: The Love Triangle of Xiap, Akt and p53*” Seminar Speaker, Ottawa Regional Cancer Centre, Ottawa (February 1, 2005).
160. “*Life, Death and Immortality: Implications in Human Ovarian Cancer and New Strategy for Therapy*” Seminar Speaker, Faculty of Medicine, University of Ottawa (November 25, 1998)
161. “*Life, Death and Immortality: Implications in Human Ovarian Cancer and New Strategy for Therapy*” Grand Rounds Speaker, Department of Obstetrics & Gynaecology, The Ottawa Hospital - General Campus (November 18, 1998)
162. “*Signal transduction mechanisms in the paracrine/autocrine regulation of ovarian function*” Seminar Speaker, Department of Pharmacology, University of Ottawa (November 9, 1993)
163. “*The Role of Prostaglandins in Ovulation*” Invited Speaker, Grand Rounds, Department of Laboratory Medicine, Ottawa Civic Hospital (February 19, 1988)

CURRENT HOSPITAL APPOINTMENTS:

1. Director, Reproductive Biology Unit, Department of Obstetrics & Gynaecology, The Ottawa Hospital, (Civic Campus; 1988-present)
2. Active Scientific Research Staff, The Ottawa Hospital (Civic Campus; 1989-present)
4. Senior Scientist, Hormones, Growth and Development Program, Ottawa Health Research Institute (2001-present)

SCHOLARLY AND PROFESSIONAL ACTIVITIES:

A. University of Ottawa

- X Director, Reproductive Biology Unit, Department of Obstetrics and Gynaecology (1980-present)
- X Member, Department of Obstetrics & Gynaecology Teaching Personnel Committee (1992 - present)
- X Associate Chair, Research, Department of Obstetrics & Gynaecology, University of Ottawa (1999-2003)
- X Member, Graduate Studies Committee, Department of Physiology (1993-1997) and Department of Cellular and Molecular Medicine (1997-2000)
- X Member, Faculty of Medicine Research Advisory Committee (2002 – 2003)
- X Member, Departmental Executive Committee, Department of Obstetrics and Gynaecology, (1992-1998)
- X Co-Chair, Evaluations Committee, Undergraduate Medical Education, Faculty of Medicine (1998-2001)
- X Member, Library Advisory Committee, Faculty of Medicine (1998-1999)
- X Member, Academic Program Council on “Hormone, Reproduction and Development”, Faculty of Medicine (1994 - 1996)
- X Member, Departmental Management Committee, Department of Obstetrics and Gynaecology (1986-1992)
- X Chairman (1980-1989) and member (1980-1997), Research Committee, Department of Obstetrics and Gynaecology
- X Member, Animal Care Committee (1986-1997)
- X Member, Expert Panel on "Reproduction, Development and Youth", Phase II, Strategic Plan, University of Ottawa Health Sciences Complex (1993)
- X Chairman, Organizing Committee, Annual Reproductive Biology Workshop, Department of Obstetrics and Gynaecology (1981-present)
- X Member, Research Committee, Faculty of Medicine (1984-1986)
- X Member, B. Med. Sc. Committee (1983-1987)

B. The Ottawa Hospital / Research Institute

- X Director, Reproductive Biology Unit, Department of Obstetrics and Gynaecology (1980-present)
- X Member, International Research Partnership Committee, Ottawa Health Research Institute (2008-present)
- X Chair, Organizing Committee, Ottawa Annual Reproductive Biology Workshop (1982-present)

- X Chair, OHRI Communication and Events Committee (2002 – 2005)
 - Organized 2nd, 3rd and 4th OHRI Research Day 2003, 2004, 2005
 - Organized Institute Picnic
 - Organized the OHRI Scientist Retreat 2004, 2005
- X Member, Executive Committee, Hormones, Growth and Development Program of Excellence (1992-1996)
- X Chairman, Animal Care Committee (1985-2002)
- X Member of Biohazard Committee (2001 –2005)
- X Member, Organising Committee, Annual Loeb Health Research Institute Dinner (1998 – 2001)
- X Member, Organising Committee, Official Opening of the Regional Protein Chemistry Centre, Loeb Health Research Institute (2000)
- X Member, Steering Committee, First Anniversary Celebration, Ottawa Health Research Institute (2002)
- X Member, Executive Committee, Department of Obstetrics & Gynaecology (1993-1999)
- X Member, Multiculturalism Senior Management Committee (1992-1994)
- X Member, Loeb Institute Program Planning/Development Committee (1992-1997)
- X Member, Operations Committee, Loeb Medical Research Institute (1989-1992)
- X Member, Research Advisory Committee (1989-1994)
- X Chairman (1985-1986) and member (1985 - 1989), Research Scientific Committee
- X Director of Research (1984 -1986)
- X Acting Director of Research (1984)
- X Member, Medical Advisory Committee (1984-1986)
- X Member, Health Science Library Committee (1985-1996)
- X Associate Scientist, Ottawa Hospital Research Institute (1997- 2001)
- X Chairman (1984) and member (1981-1984), Committee on Research
- X Chairman (1985-1986) and member (1985-1989), Research Executive Committee
- X Chair, Loeb Medical Research Institute Planning Committee: Phases I and II (1985-1988)
- X Member, Isotope Committee (1984 - 1992)
- X Member, Research Education Committee (1985 - 1986)
- X Member, Search Committee for Radiation Safety Officer (1989)

C. Local

- X Consultant, Ovarian Cancer & Reproductive Biology Programs, ApoptoGen Inc (1998-1999)
- X Consultant, Ontario Cancer Treatment and Research Foundation, Ottawa Regional Cancer Centre - Civic Division (1984-1986)
- X Medical Advisor, Kiwanis Club of Ottawa Medical Foundation (1985)
- X Co-chairman, Steering Committee, Reproductive Biology Fund-raising Campaign, Ottawa-Carleton Chinese Community (1989-1992)

D. National/International

- X Chair, Second Sino-Canada Bilateral Workshop in Reproductive Health Research – *“Partnerships in Reproductive Health Innovation”* Ottawa, Canada, October 19-21, 2007.
- X Co-Chair, Fourth Canada-Japan Bilateral Workshop in Human Reproduction and Reproductive Biology, Hiroasaki, Japan, July 31-August 2, 2007.
- X Past President, Canadian Fertility and Andrology Society, (2006 – present)
- X President, Canadian Fertility and Andrology Society, (2005 – 2006)
- X President-Elect, Canadian Fertility and Andrology Society, (2004 – 2005)
- X Vice President, Canadian Fertility and Andrology Society, (2003 – 2004)
- X Co-Chair, Sino-Canada Bilateral Program in Reproductive Health Research – *“Building a Healthy Family Building a Healthy Family Through Scientific Excellence and Innovation: From Bench to Bedside to Community and Back”* Phase I (Bilateral Workshop in Beijing, China, November 15-18, 2005)
- X Organizer, International Executive Committee, Canada-Japan Bilateral Exchanges in Reproductive Biology and Human Reproduction - *“Improving Women’s Reproductive Health Through Research and Education: From Bench to Bedside to Community”* Phase IV (Bilateral Workshop in Ottawa, Canada, November 29-December 1, 2004)
- X Member, Organizing Committee for the Canadian Conference on Ovarian Cancer Research, Ottawa (May 27 – 28, 2002).
- X Member, International Executive Committee, Canada-Japan Bilateral Exchanges in Reproductive Biology and Human Reproduction - *“Improving Women’s Reproductive Health Through Research and Education: From Bench to Bedside to Community”* Phase III (Bilateral Workshop in Tokyo and Fukui, Japan, November 26-30, 2001)
- X Organizer, Canada-Japan Bilateral Exchanges in Reproductive Biology and Human Reproduction *“Improving Women’s Reproductive Health Through Research and Education: From Bench to Bedside to Community”*: Phase I (Mission to Japan, October 3 - 10, 1999) and Phase II (Bilateral Workshop in Ottawa, March 15 - 22, 2000)
- X Program Director, Strategic Training Initiative in Research in Reproductive Health Sciences (STIRRHS), a National multi-centre training program in reproductive health research sciences funded by the Canadian Institutes of Health Research (2004 – 2008).

- X Member, Program Advisory Committee, STIRRHS (2002-2008).
- X Chair, Student Selection Committee, as well as Official Mentor, STIRRHS (2002-2008)
- X Chair, Local Arrangements Committee, Thirty Fourth Annual Meeting of the Society for the Study of Reproduction, Ottawa, July 28 - October 1, 2001)
- X Member (2002-2004) and Co-Chair (2005-2008), Board of Directors, and Scientific Program Committee, Ovarian Workshop.
- X Member, Cancer Research Society Grants Panel (2007)
- X Member, MRC Endocrinology Grants Committee (1992-1995)
- X Member, MRC Studentship Committee (1989-1991)
- X Chairman (1987-1990) and member (1982-1987), Executive Committee, Canadian Investigators in Reproduction
- X Member, Editorial Board, Reproduction (2006 - present)
- X Member, Editorial Board, J of Ovarian Research (2008 - present)
- X Guest Editor, Biological Signals and Receptors (Special Issue on “Ovarian Apoptosis”; 2000)
- X Guest Editor, Reproduction (Focus Issue on “Cell Signals Regulating Reproductive Processes”; 2006)
- X Associate Editor, Journal of Obstetrics and Gynaecology Canada (2001-2005)
- X Member, Editorial Advisory Committee, Journal of Obstetrics & Gynaecology Canada (2005-present)
- X Member, Editorial Board, Biology of Reproduction (1995-1999, 2002-2006)
- X Member, Editorial Board, Reproductive Biology & Endocrinology (2002 – present)
- X Chairman (1994-1995) and member (1984-1985; 1993-1994), Nominating Committee, Society for the Study of Reproduction
- X Chair (2003-2004) and Member (2001-2003), Development Committee, Society for the Study of Reproduction
- X Chairman, Industrial Relations Subcommittee, Society for the Study of Reproduction (2001- 2004)
- X Member, Future Meeting Sites Committee, Society for the Study of Reproduction (1995-1996)
- X Member, Education Committee, Society for the Study of Reproduction (1985-1986)
- X Member, Research Committee, Association of Professors of Obstetrics and Gynaecology of Canada (1986 – 1992; 2001- 2004)
- X Consultant, Non-Human Primate Breeding Program, Animal Resources Division, Health Protection Branch, Health & Welfare Canada (1983 - 1991)

- X Member, Assessment Panel of the Canadian Council on Animal Care (1985-2000). Institutions assessed include:
 - Queen's University/Hotel Dieu Hospital, Kingston (1985)
 - Toronto General Hospital (1987)
 - Langford Inc., Guelph (1987)
 - Mount Sinai Hospital, Toronto (1987)
 - University of Lethbridge (1988)
 - University of Calgary (1988)
 - McMaster University/St. Joseph Hospital, Hamilton (1989)
 - University of Saskatchewan/VIDO/Canadian Wildlife Services, Saskatoon (1990)
 - Hospital for Sick Children, Toronto (1991)
 - Simon Fraser University (1995)
 - Quadra Logic Technologies (1995)
 - University of Manitoba (1998)
 - University Health Network (Toronto General Hospital/Toronto Western Hospital/ Princess Margaret Hospital: 1999)
 - University of British Columbia (2000)

- X Member, Medical Research Council of Canada Site Visit Team,
 - (a) Assessment of Development Grant Application, University of Saskatchewan (November 1990)

- X Co-chairman, Canadian Workshop on Human Reproduction and Reproductive Biology "From Bench to Bedside" (April 25-29, 1994)

- E. Others**

- X Ad Hoc research grant review:
 - (a) Medical Research Council of Canada;
 - (b) National Science Foundation, U.S.A.;
 - (c) Ontario Ministry of Health;
 - (d) Natural Sciences and Engineering Research Council of Canada;
 - (e) British Columbia Health Care Research Foundation
 - (f) Research Grants Council, Hong Kong
 - (g) Canadian Institutes of Health Research

- X Journal manuscript review:
 - (a) Biology of Reproduction;
 - (b) Endocrinology;
 - (c) Journal of Clinical Endocrinology and Metabolism;
 - (d) American Journal of Obstetrics and Gynaecology;
 - (e) Cell Death and Differentiation;
 - (f) Journal of Molecular Endocrinology;
 - (g) Reproduction
 - (h) Canadian Journal of Physiology and Pharmacology
 - (i) Laboratory Animal Science

RESEARCH TRAINEE SUPERVISION:

1. Post-doctoral fellows/visiting scholars:

Name	Year of Tenure	Position of Tenure	Funding	Current Appointment
<i>Ooi, Teik-Chyl M.D.</i>	1980	Postdoctoral Fellow	Dep't Obst. & Gynaecol. Ottawa Civic Hospital	Professor of Medicine, Chief, Div. Endocrinology, University of Ottawa
<i>Carnegie, Jacqueline A. Ph.D.</i>	1981-1984 1984-1986	Postdoctoral Fellow Research Associate	MRC Fellowship Award MRC grant	Assistant Professor of Cellular and Molecular Medicine, University of Ottawa
<i>Domingo, Minerva T. M.D.</i>	1983-1985	Postdoctoral Fellow	Department of Obst. & Gynaecol. Ottawa Civic Hospital	Obstetrician/Gynaecologist
<i>Arodi, Joseph M.D.</i>	1986-1987	Postdoctoral Fellow	Non-stipendiary	Obstetrician/Gynaecologist
<i>Asem, Eliplimi K. Ph.D., DVM</i>	1986-1989	Postdoctoral Fellow	MRC grant	Professor and Vice Dean - Research, Purdue University
<i>Coleman, Gina A. M.D.</i>	1988-1989	Postdoctoral Fellow	MRC grant	Family Physician
<i>Li, Ming B.Sc</i>	1986-1988 1990-1991 1992-1993 1995-1997 2001-2002	Visiting Scholar	Chinese Education Commission, People's Republic of China; MRC/CIHR grant	Professor and Chief, Department of Veterinary Medicine; Dean, College of Agriculture, Foshan University, People's Republic of China
<i>Morley, Paul Ph.D.</i>	1989-1992	Postdoctoral Fellow; Recipient of the Polanyi Prize in Medicine	MRC Fellowship Award	Group Leader and Senior Research Officer at the National Research Council
<i>Wang, Lu B.Med.Sc</i>	1989-1991	Visiting Scholar	MRC grant	Pursued graduate studies at McMaster University
<i>Yang, Zhungfa M.Med.Sc.</i>	1989-1990	Visiting Scholar	World Bank	Post-Doctoral Fellow, Reproductive Toxicology Section, Health Canada
<i>Lui, Cheng-quan M.D.</i>	1990	Visiting Scholar	W.H.O.	Senior Scientist, Shanghai Institute of Planned Parenthood, People's Republic of China
<i>Lafrance, Martine, Ph.D.</i>	1991-1993	Postdoctoral Fellow	NSERC Fellowship Award	Senior Research Officer, National Research Council
<i>Croze, France, Ph.D.</i>	1991-1993	Research Associate	Loeb Research Institute	Not known

<i>Zhou, Liying, M. B.</i>	1992	Visiting Scholar	CIDA	Research Scientist, Beijing Institute of Planned Parenthood, People's Republic of China
<i>Li, Julang, M.Sc.</i>	1992-1993	Visiting Scholar	MRC grant	Assistant Professor, University of Guelph
<i>Wade, Michael, Ph.D.</i>	1993-1995	Postdoctoral Fellow	NSERC Fellowship Award	Reproductive Biologist, Reproductive Toxicology Section, Health Canada
<i>Yan, William, Ph.D.</i>	1994-1995	Research Associate	Loeb Health Research Institute	Scientist, Pest Management Regulatory Agency, Health Canada
<i>Beshara, Nasser, M.D.</i>	1994-1995	Visiting Scholar	Non-stipendiary	Obstetrics/Gynaecology Resident, University of Ottawa
<i>Kim, Jong-Min, Ph.D.</i>	1995-1998	Postdoctoral Fellow	MRC grant	Assistant Professor, Department of Anatomy and Cell Biology, Dong-A University College of Medicine, South Korea
<i>Feng, Qiang, Ph.D.</i>	1996-1997	Visiting Scholar	Chinese Academy of Sciences, People's Republic of China; MRC grant	Research Associate, Department of Obstetrics & Gynaecology, University of British Columbia
<i>Gruslin, Andree, M.D.</i>	1997-present	Associate Scientist	University of Ottawa	Associate Professor, University of Ottawa
<i>Sheng, YingLun, M.D., M.Sc.</i>	1997-1998	Visiting Scholar	China Scholarship Council, People's Republic of China; MRC grant	Graduate Student, Dept Biochem/ Microbiol/ Immunol, University of Ottawa
<i>Sasaki, Hiromasa, M.D.</i>	1997-2000	Postdoctoral Fellow	Japan - North America Medical Exchange Foundation	Assistant Professor, Dept Obstetrics & Gynaecology, Fukui Medical University
<i>Ma, Wei, M.D.</i>	1997-1998	Visiting Scholar	MRC grant	Research Assistant, CHEO Research Institute
<i>Xiao, Chaowu, Ph.D.</i>	1998- 2000	Postdoctoral Fellow	CIHR Fellowship; CIHR grant	Research Scientist, Health Canada, Ottawa, ON
<i>Tarraf, Charbel, Ph.D.</i>	1998	Visiting Professor	American University of Beirut	Assistant Professor, American University of Beirut
<i>Qiu, Qing, M.Sc., M.D.</i>	1998-present	Postdoctoral Fellow / Research Associate	Grants from PSI and Toronto Hospital for Sick Children Foundation	
<i>Asselin, Eric, Ph.D.</i>	1999- 2000	Postdoctoral Fellow	CIHR Fellowship Award; CIHR grant	Assistant Professor, University of Quebec
<i>O, Wai-Sum, Ph.D.</i>	1999-2000	Visiting Professor	China Medical Board Fellowship	Associate Professor, University of Hong Kong

<i>Musicki, Biljana, Ph.D.</i>	2000-2000	Postdoctoral Fellow	Health Canada (TSRI Grant)	Research Associate, Department of Surgery, John Hopkins University
<i>Yan, Xiaojuan, M.D.</i>	2000-2005	Visiting Scholar	Chinese Education Commission, People's Republic of China; CIHR Grant	Associate Professor and Chief of Obstetrics & Gynecology, The Third Hospital of Hebei Medical University, China
<i>Akhavien, Azarm, MSc</i>	2001	Visiting Scholar	TSRI grant	Technologist, IVF Laboratories, Goal Program, Ottawa Hospital
<i>Jiang, Susan, Ph.D.</i>	2001-2002	Postdoctoral Fellow	TSRI grant	Research Associate, Adherex Technologies Inc. Ottawa, ON
<i>Jiang, Jin-Yi, Ph.D.</i>	2002-2007	Postdoctoral Fellow	CIHR grant; CIHR-STIRRHS Postdoctoral Fellowship; CIHR grant	Research Associate, OHRI
<i>Yang, Xiaokui, M.D., Ph.D.</i>	2003-2005	Postdoctoral Fellow	CIHR grant	Assistant Professor, Huazhong University of Science and Technology, Tongji Medical College, China
<i>Orisaka, Makoto M.D.</i>	2003-2005	Postdoctoral Fellow	MEXT Postdoctoral Fellowship, Japanese Government	Assistant Professor, Dept. Obstetrics & Gynecology, University of Fukui, Japan
<i>Wang, Hongmei, Ph.D.</i>	2003-2005	Postdoctoral Fellow	CIHR grant, CIHR-STIRRHS Postdoctoral Fellowship	Professor, State Key Laboratory of Reproductive Biology, Chinese Academy of Sciences, China
<i>Orisaka, Shanae, M.D.</i>	2003-2005	Postdoctoral Fellow	Fukui Medical University	Obstetrician/Gynaecologist, University of Fukui, Japan
<i>Noriko Kobayashi, M.D., Ph.D.</i>	2005-2008	Postdoctoral Fellow	Japan Menopause Society Fellowship; CIHR-STIRRHS Postdoctoral Fellowship	Lecturer, Department of Gynaecology, Hokkaido University, Japan
<i>Tao Bai, M.D. Ph.D.</i>	2006-2007	Postdoctoral Fellow	CIHR grant	
<i>Meirong Du, MD, PhD</i>	2007-present	Postdoctoral Fellow	CIHR grant / Fudan University	
<i>Patrik Vahlberg, Ph.D.</i>	2008-present	Postdoctoral Fellow	CIHR grant	
<i>Lindsay Patrick, Ph.D.</i>	2008-present	Postdoctoral Fellow	CIHR grant	
<i>Mingju Cao, PhD</i>	2008-present	Postdoctoral Fellow	CIHR-STIRRHS Postdoctoral Fellowship	

2. Graduate students, Department of Physiology/Cellular & Molecular Medicine, University of Ottawa (1982-present)

Name	Candidacy	Training Period	Funding Support	Current Appointment
<i>Mutter, Jeff, B.Sc.</i>	M.Sc.	1982-1985	MRC grant	Not known
<i>Mattice, David, B.Sc.</i>	M.Sc.	1983-1987	OGS Award	Family Physician
<i>Taheri, Arezoo, M.D.</i>	M.Sc.	1985-1986	MRC grant	Obstetrician/Gynaecologist
<i>Komorowski, Joanna</i>	Ph.D.	1985-1993	MRC grant	Instructor, University of Ottawa
<i>Jindal, Sangita, B.Sc.</i>	M.Sc.	1986-1988	MRC grant	IVF Scientist, Hackensack University Medical Center, New Jersey
<i>Karakji, Elie G., M.D.</i>	Ph.D.	1991-1996	MRC grant	Assistant Professor, American University of Beirut
<i>Boone, David, M.Sc.</i>	Ph.D.	1993-1997	OGS Award; Genesis Research Foundation Scholarship	Assistant Professor, University of California, San Francisco
<i>Soboloff, Jonathan</i>	Ph.D.	1993- 1998	NSERC Scholarship and OGS Awards	Assistant Professor, Department of Biochemistry and Molecular Biology, University of Maryland
<i>Li, Julang, M.Sc.</i>	Ph.D.	1993-1997	OGS Award; Genesis Research Foundation Scholarship	Associate Professor, University of Guelph
<i>Manchanda, Raman, B.Sc.</i>	M.Sc.	1995-1997	NSERC Scholarship	Family Medicine Specialist in Vancouver, BC
<i>Schneiderman, Danielle, B.Sc.</i>	M.Sc.	1996-2000	NSERC Scholarship & MRC grant	Research technician, Agriculture Canada
<i>Wang, Yifang, B.Sc.</i>	Ph.D.	1998-2003	OGS-ST Award; NSERC Scholarship; CIHR grant	Andrologist, Fertility Centre, The Ottawa Hospital
<i>Fraser, Michael, B.Sc.</i>	Ph.D.	2001-2006	OGS-ST Award, CIHR grant, CIHR Doctoral Scholarship	Senior Program Manager, National Cancer Institute of Canada
<i>Cheung, Carmen, B.Sc.</i>	M.Sc.	2002 - 2005	CIHR grant; CIHR-STIRRHs Graduate Studentship	Research Assistant, Adenoviral Core Facility, University of Ottawa Neuroscience Research Institute
<i>Jahani-Asl, Arezu, B.Sc.</i>	M.Sc.	2002 - 2004	CIHR grant	Ph.D. candidate, Department of Cellular & Molecular Medicine, University of Ottawa
<i>Mohammad Reza Abedini, Pharm.D.</i>	Ph.D.	2002 - present	Ministry of Education, Government of Iran; CRS Grant	
<i>Boulay, Hillary</i>	M.Sc.	2003 - 2005	CIHR grant	Technologist, Health Canada
<i>Jesse Craig, MSc.</i>	Ph.D.	2004 - 2006	NSERC Graduate Scholarship; NSERC Canada Doctoral Scholarship	Science writer, Canadian Medical Association
<i>Shadia Al. Bahlani</i>	Ph.D.	2005 - present	Government of Oman	
<i>Michael Woo, MSc</i>	Ph.D.	2006 - present	CIHR grant	
<i>Lihua Wen, MSc</i>	Ph.D.	2006 - present	CIHR grant, OGS-ST	
<i>Qi Wang, MSc.</i>	Ph.D.	2007 - present	CIHR grant	

<i>Ahmed Ali, MSc.</i>	PhD	2007 - present	CIHR grant	
<i>Maliha Haider, BSc</i>	MSc	2007- present	CIHR grant	

3. **B. Med. Sc. students, Faculty of Medicine, University of Ottawa (1983-present)**

Levi, Alan (1983-1984)

4. **B.Sc. (Hon) students, University of Ottawa (1985-present)**

Jindal, Sangita, Department of Physiology (1985-1986)
 Siddiqi, Rubena, Department of Physiology (1990-1991)
 Harrimann, Brenda, Department of Physiology (1997-1998)
 Hogan, Angela, Department of Cellular and Molecular Medicine (1998-1999)
 Leung, Brendan, Department of Biochemistry, Microbiology & Immunology (2001-2002)

5. **Member, Graduate Advisory Committees for:**

Tonary, Angela (1990 - 1995)
 Karakji, Eli (1991 - 1996)
 Alnaif, Bunan (1990 - 1994)
 Boone, David (1993 - 1997)
 Soboloff, Jonathan (1993 - 1998)
 Li, Julang (1993 - 1997)
 Manchanda, Raman (1995 - 1997)
 Schneiderman, Danielle (1996 - 1999)
 Keszthelyi, Eni J. (1996 - 1998)
 Wang, Yifang (1998 - 2003)
 Shaw, Tanya (1999 - 2005)
 Wilkins, Kevin (2000 - present)
 Steeves, Candace (1999 - 2004)
 Fraser, Michael (2001 - 2006)
 Cheung, Carmen (2002 - 2005)
 Steller, Michael (2002 - 2005)
 Jahani-Asl, Arezu (2002 - 2005)
 Boulay, Hillary (2003 - 2005)
 Craig, Jesse (2003 - 2006)
 Abedini, Mohammad Reza (2002 - present)
 Petrunewich, Mary Ann (2000 - present)
 Clarke, Catherine (2003 - present)
 Artemenko, Yulia (2004 - present)
 Xu, Hongbin (2003 - present)
 Al Bahlani, Shadia (2004 - present)
 Yeboah, Dorothy (2005 - present)
 Laviolette, Laura (2004 - present)

Woo, Mike	(2006 – present)
Richard, Tiffany	(2007 – present)
Wen, Lihua	(2007 – present)
Wang, Qi	(2007 – present)
Haider, Maliha	(2007 – present)
Ali, Ahmed	(2007 – present)
Arabi Katbi, Hadia	(2006 – present)
Azadi, Behnam	(2007 – present)
Langille, Melanie	(2008 – present)

6. Summer Students:

Wong, Elston	(1994, 1995)
Yan, Jonathan	(1994)
Shahnavaz, Ali	(1995)
Harrimann, Brenda	(1997)
Kielar, Ania	(1997)
Park, Ji Young	(1997)
Hogan, Angela	(1998)
Kris Ash	(1999)
Adrienne Fowley	(1999)
Chris Tsang	(1999, 2001)
Suzanne Papademetriou	(1999)
Leung, Brendan	(2000, 2001, 2002)
Chan, Simon	(2000, 2001)
Cox, Heather	(2000)
Chan, Sarah	(2004)
Sylvain, Josee	(2004)
Sham, Derek	(2006, 2007)
Lin, Tricia	(2007)

TEACHING ACTIVITIES:

1. Courses:

PCS 1152	Endocrinology (for medical students)
PHS 2300	B.Sc.N. Physiology II (for nursing students)
PHS 4336/PHS 5336	Reproductive Physiology (for Honours and graduate students)
PHS 4100	Physiology and Mechanisms of Disease (for nursing students)
PHS 4300	Selected Topics in Pathophysiology (for nursing students)
PHS 5211	Cellular and Molecular Control Systems and Pathophysiological Mechanisms (for graduate students)
PHS 5335	Special Topics in Endocrine Physiology (for graduate students)
MED2102	Tutorials for Human Reproduction and Sexuality Block (for medical students)
PHS 8000	Reproductive and Developmental Biology (for graduate students)
CMM5313	Physiology and pathophysiology of reproductive, renal and gastrointestinal systems (for graduate students)
CMM 8105	Biology of Cancer (for graduate students)
CMM8324/8325	Graduate Seminar (for graduate students)

2. Member, examining boards for thesis defence (1982-present):

Lubek, Barry, 1982 (Ph.D.; University of Ottawa)
Chand, Diwan Vijay, 1983 (M.Sc.; University of Ottawa)
Hwang, Mei, 1985 (B.Med.Sc. ; University of Ottawa)
Regimbal, Marc, 1987 (M.Sc.; University of Ottawa)
Riley, John, 1987 (Ph.D.; University of Waterloo)
Parulekar, Wendy, 1988 (B.Med.Sc.; University of Ottawa)
Politis, Ioannis, 1989 (Ph.D.; McGill University)
Rodway, Marie Rosalind, 1990 (Ph.D.; University of British Columbia)
Grant, Gerry, 1993 (M.Sc.; McGill University).
Ismail, Rubina, 1998 (Ph.D.; University of Ottawa).
Farahani, Reza, 1998 (Ph.D.; University of Ottawa).
Li, Li, 1999 (Ph.D.; University of Hong Kong)
Lee, Pearly, 1999 (Ph.D.; University of British Columbia)
Li, Raymond, 2000 (M. Med. Sc., University of Hong Kong)
Tonary, Angela, 2000 (Ph.D.; University of Ottawa)
Philips, Karen, 2001 (Ph.D.; University of Ottawa)
Prevost, Manon, 2002 (MSc.; University of Ottawa)
Rahbar, Ramtin, 2003 (MSc; University of Ottawa) – Chair of Panel
Renwick, Joanne, 2004 (MSc.; University of Ottawa)
Zhou, Chenxi, 2004 (Ph.D.; Chinese University of Hong Kong)
Dan, Han, 2004 (PhD; University of Southern Florida)
Li, Yuhua, 2006 (MSc; University of Ottawa) – Chair of Panel
Ho, Emmanuel, 2007 (PhD; University of Toronto)
Soto, Paolet, 2007 (PhD; University of Montreal)
Woo, Michele, 2007 (PhD; University of British Columbia)

LEARNED SOCIETIES AND AFFILIATIONS:

1. Canadian Investigators in Reproduction (1977 - present)
2. Society of Obstetricians and Gynecologists of Canada (1977 - present)
3. Society for Gynecologic Investigation (1998 - present)
4. Society for the Study of Reproduction (1977 - present)
5. Endocrine Society (1978 - present)
6. Canadian Fertility and Andrology Society (1983 - present)
7. Canadian Physiological Society (1983 - present)
8. Canadian Association for Medical Education (1987 - 1992)
9. American Association for the Advancement of Science (1994 - present)

RESEARCH INTERESTS

Ovarian Function and Female Infertility

Ovarian Cancer Biology

Placental Apoptosis and the Regulation of Fetal Growth

Reproductive and Mammary Tumourigenic Effects of Environmental Toxins.

Molecular and Cellular Predictors for Outcome Assessment in Assisted Reproduction

MAJOR RESEARCH PROGRAMS

1 Ovarian Follicular and Atresia.

Ovarian follicular development and atresia is the culmination of complex actions and interactions of gonadotropins and intra-ovarian regulators. Although the importance of FSH, thyroid hormone, epidermal growth factors and transforming growth factor beta family members in the regulation of ovarian function is well established, how these ovarian regulators interact at the subcellular levels in determining the fate of granulosa cells (proliferation differentiation vs. apoptosis) and eventually follicle destiny (continual growth vs. atresia) is poorly understood. In this research program, we examine the crosstalk between death and survival signaling pathways in the regulation of ovarian follicular growth and atresia by endocrine, paracrine and autocrine regulators and/or extracellular matrix protein-receptor activation. Our overall hypothesis is that the fate of an ovarian follicle is determined by a balance between actions of cell survival promoters and cell death inducers, which are mediated by the induction and/or activation of granulosa cell intracellular intermediates, which are pro-apoptotic (e.g. prohibitin, caspases), and anti-apoptotic [Inhibitor of Apoptosis Proteins (XIAP and HIAP-2), FLICE-like Inhibitory Proteins (FLIP), focal adhesion kinase (FAK) and phosphatidylinositol 3-kinase (PI3K)]. Our studies will form the basis for future investigations on the nature and regulation of various ovarian disorders (e.g. polycystic ovarian disease, premature ovarian failure, luteal phase defect and ovarian cancer) and provide important insight into their pathophysiology. (Funded by Canadian Institutes of Health Research).

2. Human Ovarian Cancer Biology and Chemoresistance.

Ovarian cancer (OVCA) is the most lethal gynaecological cancer in the Western world and ranks fifth among the most common female cancers. Despite advances in our understanding of tumour biology, the overall mortality from OVCA remains high. Cisplatin (CDDP) is a first-line chemotherapeutic agent for OVCA but chemoresistance remains a hurdle to successful therapy. Chemoresistance in human OVCA is due in part to defects in drug-induced apoptosis, which is associated with activation of the PI3K/Akt Pathway, stabilization of cell survival intermediate (XIAP and FLIP), p53 gene mutation, suppressed p53 activation and mitochondrial protein release. Our overall objective is to study the molecular and cellular mechanisms of chemoresistance in human OVCA. Specifically, we examine if and how Akt, XIAP, FLIP and p53 interact in the regulation of chemosensitivity of OVCA cells. We hypothesize that p53-induced apoptosis is a determinant of chemosensitivity. We investigate if Akt confers chemoresistance in part by (a) suppressing CDDP-induced p53 phosphorylation and activation, (b) stabilization of Xiap via phosphorylation and inhibition of Xiap ubiquitination and proteasomal degradation induced by CDDP, (c) preventing CDDP-induced mitochondrial release of cytochrome c, Smac/Diablo, Omi and apoptosis inducing factor, and (d) suppressing p53-dependent, proteasomal degradation of FLIP. The proposed studies will provide novel insights into the pathobiology of CDDP resistance and for development of new therapeutic strategies for

chemoresistant OVCA (Supported by Canadian Institutes of Health Research and National Cancer Institute of Canada).

3. Placental Apoptosis and the Regulation of Placental and Fetal Growth.

The understanding of the regulatory mechanisms responsible for placental growth is crucial to further our knowledge of what controls fetal growth. Indeed, placental growth is directly correlated with fetal growth as the placenta is essential to provide adequate nutrient, blood and oxygen supply to ensure adequate fetal growth and development. Despite advances in perinatal care, fetal growth restriction, often seen in pre-eclampsia, remains a leading cause of perinatal morbidity and mortality. Infants from these pregnancies often suffer multiple complications such as asphyxia, respiratory distress syndrome, prematurity and metabolic disturbances. In collaboration with Drs. Andrée Gruslin and Ajoy Basak, we are testing the hypothesis that soluble Fas ligand is involved in the regulation of placental apoptosis and is dependent on expression and/or processing of mFasL as regulated by MMP-7 and its inhibitor, TIMP-3. The processing of mFasL is dysregulated in abnormal placental conditions such as pre-eclampsia and fetal growth restriction, which are characterized by hypoxia. The overall objective of this research program is to examine the role and regulation of soluble Fas ligand in the control of apoptosis in normal and pathological conditions of the human placenta. Specifically, we will: (a) determine the expression of the precursor protein of sFasL (mFasL) throughout placental development and its relationship to placental apoptosis, (b) assess the processing of mFasL and its significance in initiation of placental apoptosis throughout development by examining the expression and activities of MMP-7 and, TIMP-3, (c) examine the influence of hypoxia on mFasL expression and processing and assess the significance of the above mFasL-related changes in pathological placental development, (d) the interaction of EGF and Leptin in the regulation of trophoblast invasion; and (e) the role of proprotein convertase-4 and IGF-II terminal maturation in the pathophysiology of pre-eclampsia and intrauterine growth restriction (support by the Toronto Sick Children Hospital Foundation and Philip Morris Company).

4. Reproductive and Mammary Tumourigenic Effects of Environmental Toxins

The overall objective of this program is to investigate the influence of environmental toxins on female reproductive function and mammary tumourigenesis. In particular, the effects of physiologically relevant concentrations of organochlorine pollutants, e.g. dioxins and PCBs, on ovarian follicular development and atresia, ovulation and mammary tumour formation are studied (Funded by the Toxic Substances Research Initiative, Health Canada).

5. Molecular and Cellular Predictors for Outcome Assessment in Assisted Reproduction.

Despite considerable advances made in recent years in improving the outcome of assisted reproductive technologies, a significant hurdle yet to overcome in IVF-ET relates not only in the identification of the determinants for poor oocyte quality and embryo development and mortality, but also to defining strategies to ameliorate these conditions. In collaboration with Drs. M. Mbikay and M.C. Léveillé in The Ottawa Hospital IVF-ET Program, efforts are made to examine cumulus cell biomarkers and apoptosis and to correlate the observed changes with oocyte / cumulus cell morphology and the ability of the oocyte to develop into a viable embryo following fertilization. In addition, this research program should provide a better understanding the molecular and cellular mechanisms of human embryo fragmentation and their significance as determinants in IVF- ET outcome, as well as important insights for the development of diagnostic tests for oocyte quality for IVF-ET (Supported by Canadian Institutes of Health Research).

FUNDING AWARDED:

1. Research Operation Support

- 2007 - 2012 Canadian Institutes of Health Research for project entitled “Molecular and Cellular Mechanisms of chemoresistance in ovarian cancer” - Operating Grant (with Drs. A. Basak and E. Carmona): \$630,615
- 2008 – 2013 Natural Science and Engineering Research Council for program entitled “The Healthy Embryo Research Network” for Strategic Network Grant (Drs. M-A Sirard et al): \$4,895,000.
- 2006 – 2008 Cancer Research Society for project entitled: “Role and Regulation of FLIP in the Control of Chemosensitivity in Ovarian Cancer” – Operating Grant: \$ 104,800
- 2006-2007 Department of Foreign Affairs and International Trade Canada - Going Global Science & Technology Program for Sino-Canada Bilateral Workshop in Reproductive Health Research “Establishing Mechanism of Ovarian Proliferative Disorders and Joint Centres in International Reproductive Health” - Contract: \$ 21,219.
- 2006 - 2009 Canadian Institutes of Health Research (China-Canada Joint Health Research Initiative) for project entitled “Ovarian Follicular Development: Dysregulation in Polycystic Ovarian Syndrome” - Operating Grant: \$ 90,000 + 450,000 RMB.
- 2000 - 2010 Canadian Institutes of Health Research for project entitled “Regulation of Ovarian Follicular Development and Atresia” - Operating Grant:
- | | |
|-------------|-----------|
| 2005 – 2010 | \$702,790 |
| 2000 – 2005 | \$731,376 |
- 2003 – 2008 Strategic Research Initiative of the Institute of Human Development and Child and Youth Health, Canadian Institutes of Health Research for project entitled “Program on Oocyte Health” - Program Grant: \$2,746,575
- 2002 - 2007 Canadian Institutes of Health Research for project entitled “Role of Xiap and Akt in chemoresistant ovarian cancer” - Operating Grant: \$573,129
- 2005-2006 Department of Foreign Affairs and International Trade (Going Global Program) for Sino-Canada Bilateral Workshop in Reproductive Health Research “Building a Healthy Family through Scientific Excellence and Innovations: from Bench to Bedside to Community and Back” - Contract: \$ 50,000
- 2002 - 2005 National Cancer Institute of Canada for project entitled “Role of Xiap and Akt in chemoresistant ovarian cancer” - Operating Grant: \$93,212

- 2002 - 2005 Philip Morris Company for project entitled “Role of PI3K signalling pathway in mediating smoking-induced inhibition of trophoblast invasion” -Operating Grant (with Dr. Andree Gruslin): \$ 448,600
- 2001 - 2003 Toronto Sick Children Hospital Foundation for project entitled “Role and Regulation of Placental Apoptosis in Health and Diseases” - Operating Grant (with Drs. Andree Gruslin and A. Basak): \$142,312
- 1999 - 2002 Medical Research Council of Canada for project entitled "Role of Xiap in the Regulation of Cell Death Pathways in Human Ovarian Cancer" - Operating Grant: \$ 241,521
- 1999 - 2002 Health Canada (Toxic Substances Research Initiative) for project entitled “Reproductive and Mammary Tumorigenic Effects of Neonatal Exposure to Breast Milk Contaminants” - Operating Grant (with Drs. Daniel Desaulniers and Michel Charbonneau): \$ 688,434
- 1988 - 2000 Medical Research Council of Canada for project entitled “Regulation of Ovarian Function” - Operating Grant
- 1995 - 2000 : \$ 473,343
1990 - 1995 : \$ 496,000
1988 - 1990 : \$ 128,250
- 1998 - 2000 Physicians Service Incorporated for project entitled “Role of Placental Apoptosis in Regulation of Placental and Fetal Growth” - Operating Grant (with Dr. Andree Gruslin): \$ 99,000 (Tsang’s Lab)
- 1999 - 2000 The Canadian Institute of Health Research for project on Canada-Japan Bilateral Exchanges in Reproductive Biology and Human Reproduction “*Improving Women’s Reproductive Health through Research and Education: From Bench to Bedside to Community*” - Operating Grant: \$ 10,000
- 2001 – 2002 Institute of Human Development and Child/Youth Health, CIHR for project on Canada-Japan Bilateral Exchanges in Human Reproduction and Reproductive Biology – Workshop Grant : \$ 10,000.
- 1999 - 2000 Department of Foreign Affairs and International Trade (Going Global Program) for project on Canada-Japan Bilateral Exchanges in Reproductive Biology and Human Reproduction “*Improving Women’s Reproductive Health through Research and Education: From Bench to Bedside to Community*” - Contract: \$ 50,000
- 1998 - 2000 Japanese Ministry of Education, Science, Sports and Culture for project entitled “Mechanism of Granulosa Cell Differentiation and Oncogenesis” - Grant-in-Aid for International Scientific Research (Joint research application with Professors F. Kotsuji and A. Amsterdam): 7,200,000 Japanese Yen (CAN \$89,640)

- 1998-1999 Japan Society for the Promotion of Science for JSPS Invitation Fellowship for Research in Japan (Travel support): 912,000 Japanese Yen (CAN \$11,354)
- 1995-1997 Japanese Ministry of Education, Science, Sports and Culture for project entitled "Study of the Mechanism of Granulosa Cell Differentiation" - Grant-in-Aid for International Scientific Research (Joint research application with Professor F. Kotsuji and A. Amsterdam): 7,200,000 Japanese Yen (CAN \$89,640)
- 1982 - 1988 Medical Research Council of Canada for project entitled "Regulation of Ovarian Steroidogenesis" - Operating Grant
- 1984 - 1988 : \$ 136,832
1982 - 1984 : \$ 60,270
- 1996 - 1997 Medical Research Council of Canada - National Natural Science Foundation of China for International Exchange Program: \$9,240
- 1996 - 1997 ApoptoGen Inc. for Research in Human Ovarian Cancer: \$28,000
- 1997 University of Ottawa School of Graduate Studies and Research (University Industry Program) for project entitled "Programmed Cell Death in Human Ovarian Cancer": \$ 5,000
- 1996 - 1997 Serono Canada Ltd. and Association of Professors of Obstetrics & Gynaecology for Resident Research Project entitled "Co-localization of Fas Antigen and Apoptosis in the Human Ovary During Follicular Atresia" (Resident: Dr. Anthony Auyeung): \$5,000
- 1993 - 1995 Bureau of Chemical Hazards, Health Canada for research contract entitled "Effects of Physiologically Relevant Concentrations of Organochlorine Pollutants on Ovarian Follicular Development, Atresia and Ovulation": \$90,000
- 1985 - 1988 Natural Sciences and Engineering Research Council of Canada for project entitled "Ovarian Follicular Development and Ovulation" - Strategic Operating Grant (with Drs. B.R. Downey and L. Ainsworth): \$105,000
- 1988 - 1994 Fonds pour La Formation de Chercheurs et L'Aide a la Recherche, Province of Quebec for project entitled "Ovarian Follicular Development and Ovulation" - Team Grant (with Drs. B.R. Downey, R. Farookhi and L. Ainsworth):
- 1988 - 1991 : \$67,487
1991 - 1994 : \$71,400
- 1981 - 1984 Agriculture Canada for project entitled "The Control of Ovarian Follicular Growth and Ovulation in the Pig" - Research Contract: \$135,510
- 1981 - 1983 Parke-Davis Canada Ltd. for project entitled "Prostaglandins and Menstrual Disorders" - Operating Grant: \$43,000

- 1980 - 1981 Parke-Davis Canada Inc. for project entitled "The Role of Prostaglandins in the Pathophysiology of Primary Dysmenorrhea, Menorrhagia and Endometriosis" - Operating Grant: \$5,000
- 1989 - 1992 Ottawa-Carleton Chinese Community for reproductive biology research: \$116,000
- 1985 - 1988 Kiwanis Club of Ottawa Medical Foundation for project entitled "Regulation of Ovarian Steroidogenesis" - Operating Grant: \$30,000

2. Research Equipment Support

- 1984 - 1985 Medical Research Council of Canada - Major Equipment Grant: Microprocessor-controlled, automatic gamma counting system: \$25,000
- 1983 - 1984 Medical Research Council of Canada - Major Equipment Grant: Microprocessor-controlled, multi-user liquid scintillation system: \$32,244
- 1988 - 1989 Lottery Funds, Province of Ontario - Major Equipment Grant for high pressure liquid chromatography system (with Dr. J.A. Carnegie): \$21,500
- 1980 - 1986 Ottawa Civic Hospital Foundation - Equipment and Operating Grants
- | | | |
|-------------|---|----------|
| 1980 - 1981 | : | \$ 7,800 |
| 1981 - 1982 | : | \$ 9,375 |
| 1982 - 1983 | : | \$ 1,890 |
| 1983 - 1984 | : | \$ 3,300 |
| 1984 - 1985 | : | \$ 7,693 |
| 1985 - 1986 | : | \$ 7,000 |
| 1997 - 1998 | : | \$ 6,300 |

3. Research Personnel Support

- 2008 – 2010 CIHR-STIRRHS Postdoctoral Fellowship for Dr. Mingju Cao: \$ 74,000
- 2007 - 2008 Ontario Graduate Scholarship in Science and Technology for Mr. Lihua Wen: \$15,000
- 2006 – 2008 CIHR-STIRRHS Postdoctoral Fellowship for Dr. Noriko Kobayashi: \$ 74,000
- 2005 – 2007 NSERC Canada Doctoral Scholarship for Jesse Craig: \$ 70,000
- 2004 – 2006 CIHR Canada Doctoral Scholarship for Michael Fraser: \$ 70,000
- 2003 – 2005 CIHR-STIRRHS Postdoctoral Fellowship for Dr. Hong-Mei Wang: \$ 70,000
- 2003 – 2005 CIHR-STIRRHS Postdoctoral Fellowship for Dr. Jin-Yi Jiang: \$ 70,000

- 2003 – 2005 CIHR-STIRRHS Graduate Scholarship for Ms. Carmen Cheung: \$ 34,000
- 2004 - 2005 NSERC Scholarship for Ms. Jesse Craig: \$19,000
- 2003 – 2004 Japan MEXT Postdoctoral Fellowship for Dr. Makoto Orisaka: \$51,000
- 2004 – 2009 Government of Oman Graduate Scholarship & Tuition for Shadia Al Bahlani: \$120,000
- 2002 – 2006 Government of Iran Graduate Scholarship & Tuition for Dr. Mohammad Abedini: \$ 124,000
- 2001 - 2003 Ontario Graduate Scholarship in Science and Technology for Mr. Michael Fraser: \$30,000
- 1999 - 2001 MRC Fellowship for Dr. Eric Asselin: \$ 79,600
- 1999 - 2001 MRC Fellowship for Dr. Chaowu Xiao: \$ 68,600
- 1999 - 2001 NSERC Scholarship for Ms. Yifang Wang: \$38,200
- 1998 - 1999 Ontario Graduate Scholarship in Science and Technology for Ms. Yifang Wang: \$15,000
- 1997 - 1999 Japan-North America Medical Exchange Foundation Postdoctoral Fellowship for Dr. H. Sasaki: 800,000 Japanese Yen.
- 1996 - 1998 NSERC Scholarship for Ms. Danielle Schneiderman: \$31,200
- 1997 - 1998 Ontario Graduate Scholarship for Mr. Jon Soboloff: \$11,859
- 1997 - 1998 Genesis Research Foundation Studentship for Dr. Wei Ma: \$ 8,000
- 1995 - 1997 NSERC Scholarship for Mr. Jon Soboloff: \$35,000
- 1995 - 1997 NSERC Scholarship for Mr. Raman Manchanda: \$35,000
- 1995 - 1997 Ontario Graduate Scholarship for Ms Julang Li: \$23,718
- 1995 - 1997 Ontario Graduate Scholarship for Mr. David Boone: \$23,718
- 1994 - 1996 Genesis Research Foundation Studentship for Ms. Julang Li: \$20,503
- 1994 - 1996 Genesis Research Foundation Studentship for Mr. David Boone: \$16,640
- 1993 - 1995 NSERC Fellowship for Dr. Michael Wade: \$58,000
- 1994 - 1995 Ontario Graduate Scholarship for Mr. Jon Soboloff: \$11,859

- 1993 - 1994 NSERC Scholarship for Ms. Patrice Jacobson: \$17,400
- 1991 - 1993 NSERC Fellowship for Dr. Martine Lafrance: \$58,000
- 1992 - 1993 CIDA Traineeship for Dr. Liying Zhou: \$38,565
- 1990 - 1992 MRC Fellowship for Dr. Paul Morley: \$56,750
- 1990 WHO Research Traineeship for Dr.Cheng-quan Liu: US \$6,700
- 1989 - 1990 The World Bank Visiting Scholarship for Dr. Zhungfa Yang: \$8,400
- 1981 - 1984 MRC Fellowship for Dr. Jacqueline Carnegie: \$46,000

4. Other Funding Support

1981- present From various pharmaceutical and scientific supply companies (Sorono, Pharmascience, Wyeth-Ayerst, Organon, Abbot Laboratories, Eli Lilly, Bristol Myers Squibb, Syntex, Merck-Frosst, Ortho McNeil, Zeneca Pharma, Berry Technologies, ReproMed, Fisher Scientific, Boehringer Mannheim) for the support of the Annual Ottawa Reproductive Biology Workshop (only last 15 years listed).

1990 - \$ 10,000
1991 - \$ 4,800
1992 - \$ 6,700
1993 - \$ 9,400
1998 - \$ 9,500
1999 - \$ 4,250
2000 - \$ 2,500
2002 - \$ 7,500
2003 - \$ 5,000
2004 - \$ 10,000
2005 - \$ 5,000

1994 From Ortho-McNeil Ltd. for the support of the Canadian Workshop on Human Reproduction and Reproductive Biology "From Bench to Bedside": \$ 100,000

1988 - From Ministry of Health, Province of Ontario for establishment and support of a human in vitro fertilization-embryo transfer program in Ottawa (with Drs. A. Leader, P. Claman and J.E.H. Spence)

1988 - 1989 : \$567,400 (capital equipment)
1988 - 1989 : \$818,800 (operation)
1989 - 1990 : \$705,668 (operation and capital replacement)
1990 - 1991 : \$738,570 (operation and capital replacement)
1991 - : \$937,070 per year (operation and capital replacement)

1980 - 1982 From Employment and Immigration Canada for Manpower Industrial Training
Program - Operating Grant
1980 - 1981 : \$ 4,930
1981 - 1982 : \$ 4,110

PATENTS

1. “Detection and Modulation of IAPs and NAIPs for Diagnosis and Treatment of Proliferative Diseases” Application filed February 13, 1997, Patent and Trademark Office, United States Department of Commerce (Serial # 08/800929; Attorney Docket File # 07891/009001).

PUBLICATIONS

A. Book Chapters and Reviews

1. Singhal, R.L. and **Tsang, B.K.** Control of cyclic 3',5'-adenosine monophosphate metabolism of gonadal steroid-sensitive tissues. In "Regulation of Growth and Differentiated Function and Eukaryote Cells" (ed. G.P. Talwar), Raven Press, New York, pp. 391-419 (1975)
2. Singhal, R.L., **Tsang, B.K.** and Sutherland, D.J.B. Regulation of cyclic nucleotide and prostaglandin metabolism in sex steroid-dependent tissues. In "Advances in Sex Hormone Research", Vol. 2 (ed. J.A. Thomas and R.L. Singhal) University Park Press, Baltimore, Maryland, pp. 325-424 (1976)
3. Singhal, R.L., Kinson, G.A. and **Tsang, B.K.** The endocrine and biochemical consequences of vasectomy in mammalian systems. In "Advances in Sex Hormone Research", Vol. 3 (ed. J.A. Thomas and R.L. Singhal) University Park Press, Baltimore, Maryland, pp. 259-307 (1977)
4. Boone, D.L. and **Tsang, B.K.** Apoptosis in the Ovary: The Role of DNase I. In "Cell Death in Reproductive Physiology", (ed. J.L. Tilly, J. Strauss III, M. Tenniswood) Springer-Verlag New York Inc., New York, NY, pp. 249-271 (1997).
5. Li, J., Sasaki, H., Sheng, Y., Schneiderman, D., Xiao, C., Kotsuji, F. and **Tsang, B.K.** Apoptosis and chemoresistance in human ovarian cancer: is Xiap a determinant? In "Ovarian Apoptosis" (edited B.K. Tsang), S. Karger AG, BASEL. Biological Signals and Receptors Vol. 9, pp. 122-130 (2000).
6. Asselin, E., Xiao, C., Wang, Y., and **Tsang, B.K.** Mammalian follicular development and atresia: the role of apoptosis. In "Ovarian Apoptosis" (edited B.K. Tsang), S. Karger AG, BASEL. Biological Signals and Receptors Vol. 9, pp. 87-95 (2000).
7. Cheng, JQ., Jiang, X., Fraser, M., Li, M., Dan, HC., Sun, M., and **Tsang, B.K.** Role of X-linked Inhibitor of Apoptosis Protein in Chemoresistance in Ovarian Cancer: Possible Involvement of the Phosphoinositide-3 kinase/Akt Pathway. Drug Resistance Updates 5: 131-146 (2002).
8. Jiang, J-Y, Cheung, C K.M., Wang, Y., and **Tsang, B.K.** Regulation of cell death and cell survival gene expression during ovarian follicular development and atresia. Frontiers in Bioscience 8: d222-237 (2003).
9. Xiao C.W., Yan, X, Sasaki, H., Kotsuji, F., and **Tsang, B. K.** Chemoresistance in Human Ovarian Cancer: Possible Roles of X-linked Inhibitor of Apoptosis Protein (XIAP). In "Ovarian Toxicology" (edited P.B. Hoyer), pp 147-170, Taylor and Francis Ltd., (2003).
10. Fraser M and **Tsang, B. K.** The Role of X-linked Inhibitor of Apoptosis Protein in Chemoresistant Ovarian Cancer. In "The Ovary" (edited E.Y. Adashi & P.C.K. Leung), Chapter 37, pp 613-624, Elsevier Science (2004).
11. Fraser M, Leung B, Jahani-Asl A, Yan X, Thompson WE and **Tsang BK.** Chemoresistance in Human Ovarian Cancer: The Role of Apoptotic Regulators. Reproductive Biology and Endocrinology 1: 66 (2003).
12. Craig J, Orisaka M, Wang HM, Orisaka S, Thompson W, Zhu C, Kotsuji F and **Tsang BK.** Gonadotropin and intra-ovarian signals regulating follicle development and atresia: the delicate balance between life and death. Frontiers in Bioscience 12: 3628-3639 (2007).
13. Wang HM and **Tsang BK.** Nodal signaling and Apoptosis. Reproduction 133: 1-8 (2007).

B. Full Length Papers in Refereed Journals

1. **Tsang, B.K.** and Singhal, R.L. Cyclic 3',5'-adenosine monophosphate-dependent protein kinase from dog prostate. *Can. J. Physiol. Pharmacol.* 51: 942-948 (1973)
2. Sutherland, D.J.B., **Tsang, B.K.**, Merali, Z. and Singhal, R.L. Testicular and prostate cyclic AMP metabolism following chronic cadmium treatment and subsequent withdrawal. *Environ. Physiol. Biochem.* 4: 205-213 (1974)
3. **Tsang, B.K.** and Singhal, R.L. A study of 3',5'-cyclic nucleotide-dependent protein kinase from canine prostate glands. *Biochem. J.* 144: 377-383 (1974)
4. Witschi, H., Kacew, S., **Tsang, B.K.** and Williamson, D. Biochemical parameters of BHT-induced cell growth in mouse lung. *Chem. Biol. Interact.* 12: 29-40 (1976)
5. Merali, Z., **Tsang, B.K.**, Singhal, R.L. and Hrdina, P.D. Effect of narcotic dependence and withdrawal on striatal dopamine-sensitive adenylate cyclase and synaptosomal cyclic AMP metabolism. *Res. Commun. Chem. Path. Pharmacol.* 14: 29-37 (1976)
6. **Tsang, B.K.** and Singhal, R.L. Effects of isoproterenol on cyclic AMP metabolism in rat ventral prostate. *Can. J. Physiol. Pharmacol.* 54: 327-335 (1976)
7. **Tsang, B.K.** and Singhal, R.L. Androgenic effects on protein kinases and cyclic AMP-binding protein in the ventral prostate. *Res. Commun. Chem. Path. Pharmacol.* 13:697-712 (1976)
8. **Tsang, B.K.**, Kacew, S. and Singhal, R.L. Possible involvement of cyclic AMP-dependent protein kinase in p,p'-DDT induced changes in hepatic metabolism. *Biochem. Pharmacol.* 25: 1985-1989 (1976)
9. Lubek, B.M., **Tsang, B.K.** and Singhal, R.L. Responsiveness of the prostatic adenylate cyclase-cyclic AMP system to cyproterone acetate treatment in male rats. *J. Med.* 8:349-365 (1977)
10. **Tsang, B.K.** and Singhal, R.L. Alterations in polyamine and nucleic acid levels in the rat ventral prostate during cyproterone acetate treatment. *Can. J. Physiol. Pharmacol.* 56: 785-791 (1978)
11. Moon, Y.S., **Tsang, B.K.**, Simpson, C. and Armstrong, D.T. Estradiol-17 β synthesis in cultured granulosa and thecal cells of human ovarian follicles: Stimulation by follicle-stimulating hormone. *J. Clin. Endocrinol. Metab.* 47: 263-267 (1978)
12. **Tsang, B.K.**, Thakur, A.N. and Singhal, R.L. Alteration in testicular cyclic AMP system in the rat following vasectomy. *Can. J. Comp. Med.* 43: 59-67 (1979)
13. **Tsang, B.K.**, Henderson, K.M. and Armstrong, D.T. Effects of danazol on estradiol-17 β and progesterone secretion by porcine ovarian cells in vitro. *Am. J. Obstet. Gynecol.* 133:256-259 (1979)
14. **Tsang, B.K.**, Moon, Y.S., Simpson, C.W. and Armstrong, D.T. Androgen biosynthesis in human ovarian follicles: Cellular source, gonadotropic control and cAMP mediation. *J. Clin. Endocrinol. Metab.* 48: 153-158 (1979)
15. **Tsang, B.K.**, Ainsworth, L., Downey, B.R. and Armstrong, D.T. Preovulatory changes in cyclic AMP and prostaglandin concentrations in follicular fluid of gilts. *Prostaglandins* 17: 141-148 (1979)

16. **Tsang, B.K.**, Leung, P.C.K. and Armstrong, D.T. Inhibition by estradiol-17 β of porcine thecal androgen production in vitro. *Molec. Cell. Endocr.* 14: 131-139 (1979)
17. Ainsworth, L., **Tsang, B.K.**, Downey, B.R., Baker, R.D., Marcus, G.J. and Armstrong, D.T. Effects of indomethacin on ovulation and luteal function in gilts. *Biol. Reprod.* 21:401-411 (1979)
18. Whitfield, J.F., Boynton, A.L., MacManus, J.P., Sikorska, M. and **Tsang, B.K.** The regulation of cell proliferation by calcium and cyclic AMP. *Molec. Cell. Biochem.* 27: 155-179 (1979)
19. Whitfield, J.F., Boynton, A.L., MacManus, J.P., Rixon, R.H., Sikorska, M., **Tsang, B.K.**, Walker, P.R. and Swierenga, S.H.H. The roles of calcium and cyclic AMP in cell proliferation. *Ann. N.Y. Acad. Sci.* 339: 216-240 (1980).
20. **Tsang, B.K.**, Rixon, R.H. and Whitfield, J.F. A possible role of cyclic AMP in the initiation of DNA synthesis by isoproterenol-activated parotid gland cells. *J. Cell. Phys.* 102: 19-26 (1980)
21. Swierenga, S.H.H., Whitfield, J.F., Boynton, A.L. MacManus, J.P., Rixon, R.H., Sikorska, M., **Tsang, B.K.** and Walker, P.R. Regulation of proliferation of normal and neoplastic rat liver cells by calcium and cyclic AMP. *Ann. N.Y. Acad. Sci.* 349: 294-311 (1980)
22. Henderson, K.M. and **Tsang, B.K.** Danazol suppresses luteal function in vitro and in vivo. *Fertil. Steril* 33: 550-556 (1980)
23. **Tsang, B.K.**, Whitfield, J.F., and Rixon, R.H. Cyclic AMP surges during the dihydrotestosterone-induced growth-division cycle of rat seminal vesicle cells. *J. Cell. Physiol.* 105: 513-517 (1980)
24. Ainsworth, L., **Tsang, B.K.**, Downey, B.R., Marcus, G.J. and Armstrong, D.T. Interrelationships between follicular fluid steroid levels, gonadotropic stimuli and oocyte maturation during preovulatory development of porcine follicles. *Biol. Reprod.* 23: 621-627 (1980)
25. **Tsang, B.K.**, Armstrong, D.T. and Whitfield, J.F. Steroid biosynthesis by isolated human ovarian follicular cells in vitro. *J. Clin. Endocrinol. Metab.* 51: 1407-1411 (1980)
26. **Tsang, B.K.**, Whitfield, J.F. and Rixon, R.H. The reversible inability of isoproterenol-activated parotid gland cells to initiate DNA synthesis in the hypocalcemic thyroparathyroidectomized rat. *J. Cell. Physiol.* 107: 41-46 (1981)
27. Boynton, A.L., Whitfield, J.F., MacManus, J.P., Armato, U., **Tsang, B.K.** and Jones, A. Involvement of cyclic AMP-dependent protein kinases in the initiation of DNA synthesis by rat liver cells. *Exp. Cell. Res.* 135: 199-211 (1981)
28. **Tsang, B.K.** and Ooi, T.C. Prostaglandin secretion by human endometrium in vitro. *Am. J. Obstet. Gynecol.* 142: 626-633 (1982)
29. **Tsang, B.K.**, Moon, Y.S. and Armstrong, D.T. Estradiol-17 β and androgen secretion by isolated porcine ovarian follicular cells in vitro. *Can. J. Physiol. Pharmacol.* 60: 1112-1118 (1982)
30. Carnegie, J.A. and **Tsang, B.K.** FSH-regulated granulosa cell steroidogenesis: Involvement of the calcium-calmodulin system. *Am. J. Obstet. Gynecol.* 145: 223-228 (1983)
31. **Tsang, B.K.** and Carnegie, J.A. Calcium requirement in the gonadotropic regulation of rat granulosa cell progesterone production. *Endocrinology* 113: 763-769 (1983)

32. Carnegie, J.A. and **Tsang, B.K.** The calcium-calmodulin system: participation in the regulation of steroidogenesis at different stages of granulosa cell differentiation. *Biol. Reprod.* 30: 515-522 (1984)
33. **Tsang, B.K.** and Carnegie, J.A. Calcium-dependent regulation of progesterone production by isolated rat granulosa cells: effects of the calcium ionophore A23187, prostaglandin E₂, dl-isoproterenol and cholera toxin. *Biol. Reprod.* 30: 787-794 (1984)
34. Ainsworth, L., **Tsang, B.K.**, Downey, B.R. and Marcus, G.J. Prostaglandin production by dispersed granulosa and theca interna cells from porcine preovulatory follicles. *Biol. Reprod.* 31: 115-121 (1984)
35. Marcus, G.J., Corner, L., Domingo, M.T., **Tsang, B.K.**, Downey, B.R. and Ainsworth, L. Enzymatic dissociation of ovarian and uterine tissues. *Endocr. Res.* 10: 151-162 (1984)
36. Mutter, J., Lemoine, J., **Tsang, B.K.** and Kucharczyk, J. Central angiotensin-induced water intake and salt appetite in the pig. *Brain Research* 322: 374-377 (1984)
37. **Tsang, B.K.**, Ainsworth, L., Downey, B.R. and Marcus, G.J. Differential production of steroids by dispersed granulosa and theca interna cells from developing preovulatory follicles of pig. *J. Reprod. Fert.* 74: 459-471 (1985)
38. Randall, G.C. and **Tsang, B.K.** Influence of the fetal pituitary-adrenal axis on fetal and maternal progesterone and unconjugated estrogen concentrations in the pig. *J. Reprod. Fert.* 78: 65-72 (1986)
39. Randall, G.C.B., Taverne, M.A.M., Challis, J.R.G., Kendall, J.Z. and **Tsang, B.K.** Interrelationships between endocrine changes in peripheral and uterine-venous blood and uterine activity at parturition in the pig. *Animal Reprod. Sci.* 11: 283-294 (1986)
40. Carnegie, J.A., Dardick, I. and **Tsang, B.K.** Microtubules and the gonadotropic regulation of granulosa cell steroidogenesis. *Endocrinology* 120: 819-828 (1987)
41. Carnegie, J.A., **Tsang, B.K.** Microtubules and the calcium-dependent regulation of rat granulosa cell steroidogenesis. *Biol. Reprod.* 36: 1007-1015 (1987)
42. Asem, E.K. and **Tsang, B.K.** Effects of calcium channel activators BAY-K8644 and CGP-28392 on steroidogenesis in granulosa cells of the domestic hen. *Biochem. Biophys. Res. Commun.* 146: 314-320 (1987)
43. Bagnell, C.A., Frando, L.B., Downey, B.R., **Tsang, B.K.**, Ainsworth, L. Localization of relaxin in the pig follicle during preovulatory development. *Biol. Reprod.* 37: 235-240 (1987)
44. **Tsang, B.K.**, Taheri A., Downey, B.R. and Ainsworth L. Secretion of 17 α -hydroxyprogesterone, androstenedione and estrogens by porcine granulosa and theca interna cells in culture. *Can. J. Physiol. Pharmacol.* 65: 1951-1956 (1987)
45. **Tsang, B.K.**, Domingo, M.T., Spence, J.E.H., Garner P.R., Dudley, D.K. and Oxorn, H. Endometrial prostaglandins and menorrhagia: influence of a prostaglandin synthetase inhibitor in vivo. *Can. J. Physiol. Pharmacol.* 65: 2081-2084 (1987)
46. Carnegie, J.A. and **Tsang, B.K.** The cytoskeleton and rat granulosa cell steroidogenesis: possible involvement of microtubules and microfilaments. *Biol. Reprod.* 38: 100-108 (1988)

47. Hammond, J.M., Hsu, C-J, Klindt, J., **Tsang, B.K.** and Downey, B.R. Gonadotropins increase concentrations of immunoreactive insulin-like growth factor-I in porcine follicular fluid in vivo. Biol. Reprod. 38: 304-308 (1988)
48. **Tsang, B.K.**, Arodi, J., Li, M., Ainsworth, L., Srikandakumar, A. and Downey, B.R. Gonadotropic regulation of prostaglandin production by ovarian follicular cells of the pig. Biol. Reprod. 38: 627-635 (1988)
49. Asem, E.K. and **Tsang, B.K.** The effect of kaurenol on steroidogenesis and cyclic adenosine monophosphate production in rat granulosa cells. Molec. Cell Endocr. 57: 149-156 (1988)
50. Carnegie, J.A., Byard, R., Dardick, I. and **Tsang, B.K.** Culture of granulosa cells in collagen gels: the influence of cell shape on steroidogenesis. Biol. Reprod. 38: 881-890 (1988)
51. **Tsang, B.K.**, Li, M. and Carnegie, J.A. Microfilaments and FSH-stimulation of granulosa cell steroidogenesis in vitro. J. Reprod. Fert. 83: 263-271 (1988)
52. **Tsang, B.K.**, Mattice, D.F., Li, M. and Asem, E.K. Effect of calcium ionophore A23187 on pregnenolone metabolism to progesterone in rat granulosa cells. Can. J. Physiol. Pharmacol. 66: 960-963 (1988)
53. Asem, E.K., Schwartz, J.L., Mealing, G.A.R., **Tsang, B.K.** and Whitfield, J.F. Evidence for two distinct potassium channels in avian granulosa cells. Biochem. Biophys. Res. Commun. 155: 761-766 (1988)
54. Asem, E.K. and **Tsang, B.K.** Sodium-dependent intracellular pH regulation in granulosa cells of the domestic hen (*Gallus domesticus*). J. Molec. Endocr. 1: 95-103 (1988).
55. Schwartz, J.L., Mealing, G.A.R., Asem, E.K., Whitfield, J.F. and **Tsang, B.K.** Ionic currents in avian granulosa cells. FEBS Letters 241: 169-172 (1988)
56. Li, M., Asem, E.K. and **Tsang, B.K.** Sodium-dependent regulation of steroidogenesis in rat granulosa cells: possible involvement of a Na^+/H^+ antiport. J. Steroid Biochem. 32: 453-458 (1989)
57. Rollin, C., Kucharczyk, J., Lemoine, J., Bichet, D. and **Tsang, B.K.** Osmoregulation of lysine vasopressin secretion and thirst during the reproductive cycle of the pig. Am. J. Physiol. 256: R270-R275 (1989)
58. Asem, E.K. and **Tsang, B.K.** Phorbol ester inhibits luteinizing hormone-, forskolin- and dibutyryl cyclic AMP-induced progesterone production in chicken granulosa cells. Can. J. Physiol. Pharmacol. 67: 122-125 (1989)
59. Asem, E.K. and **Tsang, B.K.** Na^+/H^+ exchange in granulosa cells of the three largest preovulatory follicles of the domestic hen. Gen. Comp. Endocrinol. 75: 129-134 (1989)
60. Li, M., Asem, E.K. and **Tsang, B.K.** Effect of sodium on progesterone production in granulosa cells of rapidly growing chicken ovarian follicles. Gen. Comp. Endocrinol. 75:265-270 (1989)
61. **Tsang, B.K.**, Mattice, D.F., Li, M. and Asem, E.K. Influence of A23187 and dibutyryl cyclic AMP on progestagen production by rat granulosa cells in vitro. J. Reprod. Fert. 86: 373-381 (1989)
62. Bagnell, C.A., Ayau, E., Downey, B.R., **Tsang, B.K.** and Ainsworth, L. Localization of relaxin during formation of the porcine corpus luteum. Biol. Reprod. 40: 835-842 (1989)

63. Schwartz, J.L., Asem, E.K., Mealing, G.A.R., **Tsang, B.K.**, Rousseau, E.C., Whitfield, J.F. and Payet, M.D. T- and L-calcium channels in steroid producing chicken granulosa cells in primary culture. *Endocrinology* 125: 1973-1982 (1989)
64. Ainsworth, L., **Tsang, B.K.**, Downey, B.R. and Marcus, G. The synthesis and actions of steroids and prostaglandins during follicular maturation in the pig. *J. Reprod. Fertil. Suppl.* 40: 137-150 (1990)
65. Friend, D.W., Trenholm, H.L., Thompson, B.K., Hartin, K.E., Fiser, P.S., Asem, E.K. and **Tsang, B.K.** Reproductive efficiency of gilts fed very low levels of zearalenone. *Can. J. Anim. Sci* 74: 635-645 (1990)
66. Politis, I, Wang, L., Turner, J.D. and **Tsang, B.K.** Changes in tissue-type plasminogen activator-like and plasminogen activator inhibitor activities in granulosa and theca layers during ovarian follicle development in the domestic hen. *Biol. Reprod.*42: 747-754 (1990)
67. Komorowski, J.I. and **Tsang, B.K.** Divergent effects of 1-oleoyl-2-acetylglycerol and tumor promoting phorbol ester on rat granulosa cell steroidogenesis in vitro. *Biol. Reprod.* 43: 73-79 (1990)
68. Politis, I., Srikandakumar, A., Turner, J.D., **Tsang, B.K.**, Ainsworth, L. and Downey, B.R. Changes in and partial identification of the plasminogen activator and plasminogen activator inhibitor systems during ovarian follicular maturation in the pig. *Biol. Reprod.* 43: 636-642 (1990)
69. Randall, G.C.B., Kendall, J.Z., **Tsang, B.K.** and Taverne, M.A.M. Endocrine changes following infusion of fetal pigs with corticotrophin in litters of reduced numbers. *Animal Reprod. Sci.* 23:109-122 (1990)
70. Bagnell, C.A., Tsark, W., Tashima, L., Downey, B.R., **Tsang, B.K.** and Ainsworth, L. Relaxin gene expression in the porcine follicle during preovulatory development. *J. Molec. Endocr.* 5:211-219 (1990)
71. Li, M., Morley, P., Asem, E.K., and **Tsang, B.K.** Epidermal growth factor elevates intracellular pH in chicken granulosa cells. *Endocrinology* 129:656-662 (1991)
72. Morley, P., Schwartz, J.L., Whitfield, J.F., and **Tsang, B.K.** Role of chloride ions in progesterone production by chicken granulosa cells. *Molec. Cell. Endocrinol.* 82: 107-115 (1991)
73. Li, M., Morley, P. and **Tsang, B.K.**, Epidermal growth factor elevates intracellular pH in chicken granulosa cells by activating protein kinase C. *Endocrinology* 129: 2957-2964 (1991)
74. Morley, P., **Tsang, B.K.**, Whitfield, J.F. and Schwartz, J.L. The effect of muscarinic cholinergic agonists on intracellular calcium and progesterone production by chicken granulosa cells. *Endocrinology* 130: 663-670 (1992)
75. Morley, P., **Tsang, B.K.**, Whitfield, J.F. and Schwartz, J.L.. Thapsigargin increases cytoplasmic free Ca²⁺ without influencing steroidogenesis in chicken granulosa cells. *Cell Calcium* 13: 267-275 (1992)
76. Li, M., Morley, P., Schwartz, J.L., Whitfield, J.F. and **Tsang, B.K.** Muscarinic cholinergic stimulation elevates intracellular pH in chicken granulosa cells by a Ca²⁺-dependent, Na⁺-independent mechanism. *Endocrinology* 131: 235-239 (1992)
77. Asem, E., Li, M., and **Tsang, B.K.** Calcium ionophores increase intracellular pH in hen granulosa cells. *J. Molec. Endocr.* 9: 1-6 (1992)

78. Morley, P., Whitfield, J.F., Vanderhyden, B.C., **Tsang, B.K.** and Schwartz, J.L. A new non-genomic estrogen action: the rapid release of intracellular calcium. *Endocrinology* 131:1305-1312 (1992)
79. Asem, E.K., Carnegie, J.A., and **Tsang, B.K.** Fibronectin Production in Chicken granulosa cells: effect of follicular development. *Acta Endocrinologica* 127:466-470 (1992)
80. Bagnell, C.A., Zhang, Q., Ohleth, K., Connor, M.L., Downey, B.R., **Tsang, B.K.**, and Ainsworth, L. Developmental expression of the relaxin gene in the porcine corpus luteum. *J. Molec. Endocrinol.* 10: 87-96 (1993)
81. Lafrance, M., Zhou, L. and **Tsang, B.K.** Interactions of transforming growth factors alpha and beta and luteinizing hormone in the regulation of plasminogen activator activity in avian granulosa cells during follicular development. *Endocrinology* 133:720-727 (1993)
82. Lafrance, M., Croze, F. and **Tsang, B.K.** Influence of growth factors on the plasminogen activator activity of avian granulosa cells from follicles at different maturational stages of preovulatory development. *J. Molec. Endocr.* 11: 291-304 (1993)
83. Wang, L., Croze, F., Morley, P., and **Tsang, B.K.** Granulosa-thecal Cell Interactions in the regulation of plasminogen activator activity during ovarian follicular development in the hen. *Biol. Reprod.* 49: 924-932 (1993)
84. Li, J., Li, M., Lafrance, M., and **Tsang, B.K.** Avian granulosa cell prostaglandin secretion is regulated by transforming growth factor \forall and \exists and does not control plasminogen activator activity during follicular development. *Biol. Reprod.* 51: 787-794 (1994)
85. Mealing, G., Morley, P., Whitfield, J.F., **Tsang, B.K.**, and Schwartz, J-L. Granulosa cells have calcium-dependent action potentials and a calcium-dependent chloride conductance. *Pflügers Archives.* 428: 307-314 (1994)
86. Karakji, E.G., and **Tsang, B.K.**, Follicular stage -dependent regulation of rat granulosa cell plasminogen activator system by transforming growth factor-alpha in vitro. *Biol. Reprod.* 52:411-418 (1995)
87. Li, J. and **Tsang, B.K.** Prostaglandins mediate the stimulation of DNA synthesis by TGF \forall in hen granulosa cells during ovarian follicular development. *Biol. Reprod* 52:1050-1058 (1995)
88. Karakji, E.G. and **Tsang, B.K.** Growth hormone releasing factor and vasoactive intestinal peptide stimulate rat granulosa cell plasminogen activator activity in vitro during follicular development. *Molec. Cell. Endocrinol.* 107:105-112 (1995)
89. Soboloff, J., Wade, M., Désilets, M., Wells, G., and **Tsang, B.K.** The influence of the muscarinic agonist carbachol on intracellular Ca^{2+} in chicken granulosa cells: I. dependence on follicular maturation. *Biol. Reprod.* 52:721-728 (1995)
90. Karakji, E.G. and **Tsang, B.K.** Tumor necrosis factor alpha inhibits rat granulosa cell plasminogen activator activity in vitro during follicular development. *Biol. Reprod.* 52:745-752 (1995)
91. Soboloff, J., Désilets, M., and **Tsang, B.K.** The influence of tumor necrosis factor alpha on intracellular Ca^{2+} in hen granulosa cells in vitro during follicular development. *Biol. Reprod.* 53: 544-550 (1995).

92. Boone, D.L., Yan, W., and **Tsang, B.K.** Identification of a deoxyribonuclease I-like endonuclease in rat granulosa and luteal cell nuclei. *Biol. Reprod.* 53:1057-1065 (1995).
93. Karakji, E.G., and **Tsang, B.K.** Regulation of rat granulosa cell plasminogen activator system: influence of interleukin - 1 β and follicular development. *Biol. Reprod.* 53:1302-1310 (1995).
94. Wan, X., Desilets, M., Soboloff, J., Morris, C., and **Tsang, B.K.** Muscarinic activation inhibits T-type Ca⁺⁺ current in hen granulosa cells. *Endocrinology* 137:2514-2521 (1996)
95. Li, J., Simmons, D.L., and **Tsang, B.K.** Regulation of hen granulosa cell prostaglandin production by transforming growth factors during follicular development: involvement of cyclooxygenase II. *Endocrinology* 137:2522-2529 (1996).
96. Boone, D.L. and **Tsang, B.K.** A non-isotopic technique for the identification of endonucleases involved in apoptosis. *BioTechniques* 22: 648-649 (1997)
97. Li, J., Croze, F., Yan, W., Haché, R.J.G. and **Tsang, B.K.** Up-regulation of urokinase plasminogen activator mRNA and protein in hen granulosa cells in vitro by transforming growth factor alpha during follicular development. *Biol. Reprod.* 56: 1317-1322 (1997)
98. Li, M., Karakji, E.G., Xing, R., Fryer, J.N., Carnegie, J.A. Rabbani, S.A. and **Tsang, B.K.** Expression of urokinase-type plasminogen activator and its receptor during ovarian follicular development. *Endocrinology* 138: 2790-2799 (1997)
99. Boone, D.L., Carnegie, J.A., Rippstein, P.U. and **Tsang, B.K.** Induction of apoptosis in eCG-primed rat ovaries with anti-eCG antibody. *Biol. Reprod.* 57: 420-427 (1997)
100. Li, M., Li, J., Hoodless, P., Tzukazaki, T., Wrana, J.L., Attisano, L. and **Tsang, B.K.** MADR2 expression of avian granulosa cells is up-regulated by TGF β during ovarian follicular development. *Endocrinology* 138:3659-3665 (1997)
101. Boone, D.L. and **Tsang, B.K.** Identification and localization of DNase I in the rat ovary. *Biol. Reprod.*, 57:813-820 (1997)
102. Li, J., Li, M. and **Tsang, B.K.** Regulation of cytosolic phospholipase A₂ in hen granulosa cells by transforming growth factors at different stages of follicular development. *Biol. Reprod.*, 57: 929-935 (1997)
103. Li, J., Kim, J-M., Liston, P., Li, M., Miyazaki, T., Mackenzie, A.E., Korneluk, R.G. and **Tsang, B.K.** Regulation of granulosa cell inhibitor of apoptosis protein expression during ovarian follicular development and atresia. *Endocrinology* 139: 1321-1328 (1998)
104. Kim, J-M., Boone, D.L, Auyeung, A. and **Tsang, B.K.** Granulosa cell apoptosis induced at the penultimate stage of follicular development is associated with increased levels of Fas and Fas ligand in the rat ovary. *Biol. Reprod.* 58: 1170-1176 (1998)
105. Magun, R., Boone, D.L., **Tsang, B.K.** and Sorisky, A. The effect of differentiation on the capacity of 3T3-L1 cells to undergo apoptosis in response to growth factor deprivation. *Int. J. Obesity* 22: 567-571 (1998)
106. Boone, D.L. and **Tsang, B.K.** Caspase-3 in the rat ovary: Localization and possible role in follicular atresia and luteal regression. *Biol. Reprod.* 58: 1533-1539 (1998).

107. Soboloff J, Sorisky A, Desilets M and **Tsang BK**. Acyl-chain length specific ceramide-induced changes in intracellular Ca^{++} concentration and progesterone production are not regulated by $TNF\forall$. *Biol. Reprod.* 60: 262-271 (1999).
108. Kim J-M, Yoon Y-D and **Tsang BK**. Involvement of the Fas/Fas ligand system in p53-mediated granulosa cell apoptosis during follicular development and atresia. *Endocrinology* 140: 2307-2317 (1999).
109. Schneiderman D, Kim J-M, Senterman M and **Tsang BK**. Sustained suppression of Fas ligand expression in cisplatin resistant human ovarian surface epithelial cancer. *Apoptosis* 4: 271-282 (1999).
110. Sasaki H, Sheng Y, Kotsuji F and **Tsang BK**. Down-regulation of Xiap induces apoptosis in chemoresistant human ovarian cancer cells. *Cancer Research* 60: 5659-5666 (2000).
111. Li J, Feng Q, Kim J-M, Schneiderman D, Liston P, Li M, Vanderhyden B, Faught W., Fung Kee Fung M, Senterman M, Korneluk RG and **Tsang BK**. Human ovarian cancer and cisplatin resistance: Possible role of inhibitor of apoptosis proteins. *Endocrinology* 142: 370-380 (2001).
112. Xiao CW, Ash K and **Tsang BK**. $NF\kappa B$ -mediated X-linked inhibitor of apoptosis protein expression protects rat granulosa cells from tumour necrosis factor α -induced apoptosis. *Endocrinology* 142: 557-563 (2001).
113. Asselin E, Mills GB and **Tsang BK**. Xiap regulates AKT activity and its caspase 3- dependent cleavage during cisplatin-induced apoptosis in human ovarian cancer cells. *Cancer Research* 61: 1862-1868 (2001).
114. Gruslin A, Qiu Q and **Tsang BK**. X-linked inhibitor of apoptosis protein expression and the regulation of apoptosis during placental development. *Biol. Reprod.* 64: 1264-1272 (2001).
115. Asselin E, Wang Y and **Tsang BK**. X-linked inhibitor of apoptosis protein activates phosphatidylinositol 3-Kinase/Akt pathway in rat granulosa cells during follicular development. *Endocrinology* 142: 2451-2457 (2001).
116. Soboloff J, Sasaki H and **Tsang BK**. Follicular stage-dependent $TNF\forall$ -induced granulosa cell integrin production and cell survival in the presence of $TGF\forall$. *Biol. Reprod.* 65:477-487 (2001).
117. Manchanda R, Kim J-M and **Tsang BK**. Prostaglandins mediate the anti-apoptotic action of transforming growth factor alpha in hen granulosa cells *in vitro*. *Reproduction* 122: 91-101(2001).
118. Liu SS, **Tsang BK**, Cheung ANY, Xue WC, Cheng DKL, Ng TY, Wong LC and Ngan HYS. Anti-apoptotic proteins, apoptotic and proliferative parameters and their prognostic significance in cervical carcinoma. *Euro. J. Cancer* 37: 1104-1110 (2001).
119. Gruslin A, Qiu Q and **Tsang BK**. Influence of maternal smoking on trophoblast apoptosis through out development: possible involvement of Xiap regulation. *Biol. Reprod.* 65: 1164-1169 (2001).
120. Yan XJ, Xiao CW, Sun MH, **Tsang BK** and Gibb W. Nuclear factor kappa B ($NF\kappa B$) activation and regulation of cyclooxygenase type-2 (COX-2) expression in human amnion mesenchymal cells by $IL-1\beta$. *Biol. Reprod.* 66: 1667-1671 (2002).
121. Wang Y, Asselin E, and **Tsang BK**. Involvement of $TGF\alpha$ in the regulation of rat ovarian X-linked inhibitor of apoptosis protein expression and follicular growth by FSH. *Biol. Reprod.* 66: 1672-1680 (2002).

122. Sasaki H, Kotsuji F and **Tsang BK**. Cisplatin-induced, caspase-3-mediated focal adhesion kinase processing in human ovarian cancer cells: possible regulation by X-linked inhibitor of apoptosis protein. *Gynecologic Oncology* 85: 339-350 (2002).
123. Xiao CW, Asselin E and **Tsang BK**. NF κ B-mediated induction of FLICE-like inhibitory protein prevents tumour necrosis factor- α -induced apoptosis in rat granulosa cells. *Biol. Reprod.* 67: 436-441(2002).
124. Wang Y, Chan S and **Tsang BK**. Involvement of I κ B-independent NF κ B activation in the gonadotropic regulation of Xiap expression during ovarian follicular development *in vitro*. *Endocrinology* 143: 2732-2740 (2002).
125. **Tsang BK**. The scientific basis of reproductive medicine. *J Obstet. Gynecol. Canada* 24: 855-856 (2002).
126. Wang Y, Rippstein PU and **Tsang BK**. Role and gonadotropic regulation of X-linked inhibitor of apoptosis protein expression during ovarian follicular development *in vitro*. *Biol. Reprod.* 68: 610-619 (2003).
127. Xiao CW, Yan XJ, Li Y, Reddy SAG and **Tsang BK**. Resistance of human ovarian cancer cells to TNF α is a consequence of NF κ B-mediated induction of FLICE-like inhibitory protein. *Endocrinology* 144: 623-630 (2003).
128. Jiang JY, Macchiarelli G, **Tsang BK** and Sato E. Capillary angiogenesis and degeneration in bovine ovarian antral follicles. *Reproduction* 125: 211-223 (2003).
129. Roberts HJ, Hu S, Yu H, Qiu Q, Leung PCK, Caniggia I, Gruslin A, **Tsang BK** and Peng C. Novel isoforms of activin receptor-like kinase 7 (ALK7) in human placenta: cDNA cloning, alternative splicing and expression during pregnancy. *Biol. Reprod.* 68: 1719-1726 (2003).
130. Desaulniers D, Leingartner K, Yagminas A, Musicki B, Cole J., Marro L, Charbonneau M and **Tsang BK**. Effects of neonatal exposure to mixtures of non-*ortho*-chlorinated PCBs, PCDDs and PCDFs in prepubertal female rats. *Toxicol. Sci.* 75:468-480 (2003).
131. Fraser M, Leung BM, Yan X, Dan HC, Cheng JQ and **Tsang BK**. p53 is a determinant in Xiap/Akt-mediated chemoresistance in human ovarian cancer cells. *Cancer Research* 63: 7081-7088 (2003).
132. Dan HC, Sun M, Kaneko S, Feldman RI., Nicosia SV, Wang HG, **Tsang BK**, Cheng JQ. Akt Phosphorylation and Stabilization of XIAP. *J. Biol. Chem.* 279: 5405-5412 (2004)
133. Thompson WE, Asselin E, Branch A, Stiles JK, Sutovsky, P., Lai, L., Im, G.S., Prather, R.S., Isom, SK, Rucker, E. III, and **Tsang BK**. Regulation of Prohibitin Expression during Follicular Development and Atresia in the Mammalian Ovary. *Biol. Reprod.* 71: 282-290 (2004)
134. Desaulniers D, Leingartner K, Musicki B, Cole J, Li M, Charbonneau M, and **Tsang BK**. Lack of effects of postnatal exposure to a mixture of aryl hydrocarbon-receptor agonists on the development of methylnitrosourea-induced mammary tumors in Sprague Dawley rats. *J. Toxicol Environ. Health* 67: 1457-1475 (2004)
135. Jiang JY, Shimizu T, Sasada H, **Tsang BK** and Sato E. Improvement of ovarian follicular angiogenesis and dynamic changes of follicular vascular plexuses by equine chorionic gonadotropin treatment in gilts. *Cell Tissue Res.* 316: 349-357 (2004).

136. Chen J, Halappanavar SS, St-Germain JG, **Tsang BK** and Li Q. Role of Akt/protein kinase B in the activity of transcriptional coactivator p300. *Cell Molec Life Sci* 61: 1675-1683 (2004).
137. Qiu Q, Yang M, **Tsang BK**, Gruslin A. Both mitogen-activated protein kinase (MAPK) and phosphatidylinositol 3-kinase (PI3K) signaling are required in epidermal growth factor-induced human trophoblast migration. *Molec Hum Reprod* 10: 677-684 (2004)
138. Laoag-Fernandez JB, Matsuo H, Murakoshi H, Hamada AL, **Tsang BK** and Maruo T. 3,5,3'-Triiodothyronine Down-regulates Fas and Fas ligand Expression and Suppresses Caspase-3 and Poly (ADP-Ribose) Polymerase Cleavage and Apoptosis in Early Placental Extravillous Trophoblasts *In Vitro*. *J. Clin. Endocr. Metab.* . 898: 4069-4077 (2004)
139. Abedini MR., Qiu Q, Yan X and **Tsang BK**. Possible Role of FLICE-Like Inhibitory Protein (FLIP) in Chemoresistant Ovarian Cancer Cells in vitro. *Oncogene* 24: 6977-7004 (2004).
140. Qiu Q, Yang M, **Tsang BK**, Gruslin A. EGF-induced trophoblast secretion of MMP-9 and TIMP-1 involves activation of both PI3K and MAPK signaling pathways. *Reproduction* 128: 355-363 (2004).
141. Xu G, Munir S, Zhong Y, Yang, BB, **Tsang BK**, Peng C. Nodal induces apoptosis and inhibits proliferation in human epithelial ovarian cancer cells via activin receptor-like kinase 7. *J. Clin. Endocr. Metab* 89:5523-5534 (2004).
142. Jiang J-Y and **Tsang BK**. Optimal conditions for successful in vitro fertilization in Sprague-Dawley rats. *Biol. Reprod.* 71:1974-1979 (2004).
143. Qiu Q, Yang M, **Tsang BK** and Gruslin A. Fas ligand expression by maternal decidual cells is negatively correlated with the abundance of leukocytes present at the maternal-fetal interface. *J. Reproductive Immunology.* 65:121-32 (2005).
144. Desaulniers D, Xiao G-H, Leingartner K, Chu I, Musicki B, **Tsang BK**. Comparison of brain, uterus and liver mRNA expression for *cytochrome P450s*, *DNA methyltransferase-1*, and *catechol-o-methyltransferase* in prepubertal female Sprague Dawley rats exposed to a mixture of aryl hydrocarbon receptor agonists. *Toxicol Sci* 86:175-184 (2005).
145. Qiu Q, Yang M, Basak A, Mbikay M, **Tsang BK**, Gruslin A. ProIGF-II processing in the human placenta: The expression and role of the proprotein convertase PC4. *Proc Nat. Acad. Sci. USA* 102: 11047-11052 (2005).
146. Lin HY, Yang Q, Wang HM, Qi JG, Zhang H, Wang HX, **Tsang BK** and Zhu C Involvement of Smad4, but not Smad2, in transforming growth factor -beta1-induced trophoblast expression of matrix metalloproteinase-2. *Frontiers in Bioscience* 11: 637-647 (2005).
147. Fraser M, Chan SL, Chan SSL, Fiscus RR and **Tsang BK**. Regulation of p53 and suppression of apoptosis by the soluble guanylyl cyclase/cGMP pathway in human ovarian cancer cells. *Oncogene* 25:2203-2212 (2005).
148. Yan XJ, Fraser M, Qiu Q and **Tsang BK**. Over-expression of PTEN sensitizes human ovarian cancer cells to cisplatin-induced apoptosis in a p53-dependent manner. *Gynecol. Oncology* 102: 348-355 (2006).
149. Yang X, Fraser M, Moll U, Basak A, and **Tsang BK**. Akt-mediated Cisplatin resistance in Ovarian Cancer: Modulation of p53 Action on Caspase-dependent Mitochondrial Death Pathway. *Cancer Research* 66:3126-3136 (2006).

150. Wang HM, Jiang JY, Zhu C, Peng C and **Tsang BK**. Role and Regulation of Nodal/ALK7 Signalling pathway in the control of ovarian follicular development and atresia. *Molec. Endocr.* 20: 2469-2482 (2006)
151. Orisaka M, Orisaka S, Jiang J-Y, Craig J, Wang Y, Kotsuji F and **Tsang BK**. Growth Differentiation Factor-9 is anti-apoptotic during follicular development from preantral to early antral stage. *Molec. Endocr.* 20: 2456-2468 (2006).
152. Orisaka M, Tajima K, Mizutani T, Miyamoto K, **Tsang BK**, Fukuda S, Yoshida Y, and Kotsuji F. Granulosa Cells Promote Differentiation of Cortical Stromal Cells into Theca Cells in the Bovine Ovary. *Biol. Reprod.* 75: 734 - 740 (2006).
153. Wang HX, Wang HM, Li QL, Lin HY, Yang Q, Zhang H, **Tsang BK**, and Zhu C. Proteasome subunit LMP2 is required for matrix metalloproteinase-2 and -9 expression and activities in human invasive extravillous trophoblast cell line. *J. Cell. Physiol.* 206: 616-623 (2006).
154. Wu A, Anupriwan A, Iamsaard S, Chakrabandhu K, Santos DC, Rupar T, **Tsang BK**, Carmona E and Tanphaichitr N. Sperm Surface Arylsulfatase A Can Disperse the Cumulus Matrix of Cumulus Oocyte Complexes. *J. Cell Physiol.* 213: 201-211. (2007)
155. Jahani-Asl A, Basak A and **Tsang BK**. Caspase-3-mediated cleavage of Akt: involvement of non-consensus sites and influence of phosphorylation. *FEBS Letters.* 581: 2883-2888 (2007).
156. Qiu Q, Jiang JY, Bell M, **Tsang BK** and Gruslin A. Activation of endoproteolytic processing of IGF-II in fetal, early postnatal and pregnant rats and persistence of circulating levels in postnatal life. *Endocrinology* 148: 4803- 4811 (2007).
157. Fraser M, Bai T and **Tsang BK**. Akt promotes cisplatin resistance in human ovarian cancer cells through inhibition of p53 phosphorylation and nuclear function. *Internat. J Cancer.* 122:534-546 (2008)
158. Yang X, Fraser M, Abedini MR, Bai T and **Tsang BK**. Regulation of AIF-Mediated, Cisplatin-Induced Apoptosis by Akt. *Br. J. Cancer* 98: 803-808 (2008).
159. Gregory-Bass RC, Olatinwo M, Xu W, Matthews R, Stiles JK, Thomas K, Liu D, **Tsang BK** and Thompson WE. Prohibitin silencing reverses stabilization of mitochondrial integrity and chemoresistance in ovarian cancer cells by increasing their sensitivity to apoptosis. *Internat. J. Cancer* 122: 1923-1930 (2008)
160. Leung LH, Fraser M, Fiscus RR and **Tsang BK**. Cisplatin alters nitric oxide synthase levels in human ovarian cancer cells: involvement in p53 regulation and cisplatin resistance. *Br. J. Cancer* 98, 1803 – 1809 (2008)
161. Abedini MR, Muller EJ, Brun J, Bergeron R, Gray DA and **Tsang BK**. Cisplatin induces p53-dependent FLICE-like inhibitory protein (FLIP) ubiquitination in ovarian cancer cells. *Cancer Research* 68: 4511-4517 (2008).

Manuscripts Submitted for Publication or in Preparation

162. Lin HY, Qian D, Wang HM, Yang Q, Zhang H, Zhang X, Wang HX, Yu HD, **Tsang BK** and Zhu C. Matrix Metalloproteinase-2 and -9 Expression in Human Normal, Immortalized and Malignant Trophoblasts: Regulation by Transforming Growth Factor- β 1 and Possible Involvement of the Extracellular Signal-Regulated Kinase 1/2. *J Cell Physiol.* (Submitted)

163. Boulay H, Qiu Q, Fraser M, Senterman M, Basak A, and **Tsang BK**. Proprotein convertase 4 is a cell survival mediator and determinant of chemoresistance in human ovarian cancer cells. *Cancer Research* (submitted).
164. Jiang JY, Xiong HL, Cao MJ, Xia XH, Sirard M-A, **Tsang BK** Granulosa cell gene expression associated with oocyte developmental competence. *Reproduction* (Submitted).
165. Kobayashi N, Orisaka M, Cao MJ, Kotsuji F, Leader A, Sakuragi N, and **Tsang, BK**. Growth differentiation factor-9 mediates the interaction between FSH and thyroid hormone in the regulation of rat preantral follicular development. *Molec Endocr.* (Submitted).
166. Abedini MR, Muller EJ, Bergeron R, Gray DA and Tsang BK. Akt promotes chemoresistance in human ovarian cancer cells by modulating cisplatin-induced, p53-dependent FLIP ubiquitination. *Cancer Research* (Submitted)
167. Orimoto AM, Dumaresq-Doiron K, Jiang JY, Tanphaichitr N, **Tsang BK** and Carmona E. Mammalian hyaluronidase induces ovarian granulosa cell apoptosis and is involved in the induction of follicular atresia. *Endocrinology* (Submitted)
168. Haider M, Qiu Q, Bani-Yaghoub M, **Tsang BK** and Gruslin A. Characterization of Novel Numb Isoforms in the Human Placenta. *Placenta* (Submitted)
169. Orisaka M, Jiang J-Y, Orisaka S, Kotsuji F and **Tsang BK**. Growth Differentiation Factor-9 promotes preantral follicle development through up-regulation of androgen production. *Endocrinology* (Submitted).
170. Wang Q, Craig J and **Tsang BK**. Role and Regulation of prohibitin during ovarian follicular development. *Biol Reprod* (in preparation).

C. Papers in Refereed Conference Proceeding

1. Leung, P.C.K., **Tsang, B.K.** and Armstrong, D.T. Estrogen inhibits porcine thecal androgen production in vitro. In "Ovarian Follicular and Corpus Luteum Function" (ed. C.P. Channing, J. M. Marsh and W.A. Sadler) Plenum Press, New York, Adv. Expt. Med. Biol. 112: 241-244 (1979)
2. **Tsang, B.K.** and Kinson, G.A. Biosynthesis of androgens and estrogens by normal testis. In "The Normal and Undescended Testis" (ed. E.S.E. Hafez), Martinus Nijhoff Publishers, the Hague, the Netherlands, pp. 109-121 (1980)
3. Ainsworth, L., **Tsang, B.K.**, Downey, B.R., Marcus, G.J. and Armstrong, D.T. The PMSG/hCG-treated prepubertal gilt as a model for the study of the actions and interactions of pituitary and ovarian hormones on follicular cell differentiation. In "Follicular Maturation and Ovulation" (ed. R. Rolland, E.V. van Hall, S.G. Hillier, K.P. McNatty and J. Schoemaker) Excerpta Medica, Amsterdam, the Netherlands, pp. 97-102 (1982)
4. Carnegie, J.A. and **Tsang, B.K.** Role of calcium in the stimulation of rat granulosa cell progesterone production. In "Factors Regulating Ovarian Function" (eds. G.S. Greenwald and P.F. Terranova) Raven Press, New York, pp. 375-379 (1983)
5. **Tsang, B.K.** and Carnegie, J.A. Calmodulin and the regulation of ovarian steroidogenesis. In "Factors Regulating Ovarian Function" (eds. G.S. Greenwald and P.F. Terranova) Raven Press, New York, pp. 369-373 (1983)
6. Randall, G.C.B., Kendall, J.Z., **Tsang, B.K.** and Taverne, M.A.M. Role of the fetal adrenal in the timing of parturition in the pig. Proceedings of X International Congress on Animal Reproduction and Artificial Insemination, University of Illinois, Urbana, Illinois, U.S.A. (June 10-14, 1984), Volume 2, no. 108a-108c, 1984
7. **Tsang, B.K.**, Ainsworth, L., Downey, B.R., Marcus, G.J. and Armstrong, D.T. The role of prostaglandins in follicular maturation and ovulation in the gilt. In "Current Trends in Comparative Endocrinology", (eds. B. Lofts, W.N. Holmes) Hong Kong University Press, Hong Kong, pp. 403-406 (1985)
8. Srikanthakumar, A., Downey, B.R., **Tsang, B.K.**, Arodi, J. Li, M. and Ainsworth, L. Inhibition of prostaglandin production by dexamethasone in dispersed theca interna and granulosa cells from porcine follicles. Proceedings of XI International Congress on Animal Reproduction and Artificial Insemination, Dublin, Ireland (June 26-30, 1988)
9. Li, J., Li, M., Lafrance, M., Simmons, D.L. and **Tsang, B.K.** Role and regulation of prostaglandin synthesis in the mitogenic response of ovarian granulosa cells to transforming growth factor alpha. In "Eicosanoids and Other Bioactive Lipids in Cancer, Inflammation and Radiation Injury" (ed. K.V. Honn, S. Nigam, R. Jones, L.J. Marnette and P.Y.K. Wong) Plenum Publishing Corporation, N.Y., Adv. Exp. Med. Biol. 407: 509-514 (1997).
10. Soboloff, J., Désilets and **Tsang, B.K.** Ca²⁺ signalling in avian granulosa cells during ovarian follicular development. In "Perspectives in Avian Endocrinology" (eds. S. Harvey and R.. J. Etches), Journal of Endocrinology Ltd., Bristol, United Kingdom, pp 225-237 (1997).
11. Karakji, E.G., Li, J. and **Tsang, B.K.** Molecular Mechanisms of Ovulation. In Vitro Fertilization and Assisted Reproduction (eds. V Gomel and PCK Leung), Monduzzi Editore S.p.A., Bologna, Italy, pp 241-248 (1997).
12. Sasaki, H., Li, J., Schneiderman, D., Sheng, Y., Kim, J-M, Feng, Q., Kotsuji, F. and **Tsang, B.K.** Life, death and immortality: cellular and molecular perspectives in human ovarian cancer cell

- growth. In "Frontiers in the Research of Ovarian Function" (eds. Seiichiro Fujimoto, Eli Y. Adashi, Aaron J.W. Hsueh and Jerome F. Strauss, III), Serono Symposia Publications, pp 349-358 (1999)
13. Xiao, C.W., Kim, J-M, Boone, D.L., Li, J., Carnegie, J.A., Yoon, Y-D and **Tsang, B.K.** Roles and regulation of IAPs, Fas/Fas ligand and p53 in follicular development and atresia. In "Frontiers in the Research of Ovarian Function" (eds. Seiichiro Fujimoto, Eli Y. Adashi, Aaron J.W. Hsueh and Jerome F. Strauss, III), Serono Symposia Publications, pp 195-202 (1999).
 14. Woo M, Fraser M, Yang X and **Tsang BK.** A New Perspective on the Molecular and Cellular Mechanisms of Chemoresistance in Ovarian Cancer. In Proceeding of the 6th Sapporo International Symposium on Ovarian Function, Otaru, Japan, pp 45-52. (2006)
 15. Bissonette F, Cohen J, Collins J, Cowan L, Dales S, Dills S, Greene C, Gysler M, Hanck B, Hughes E, Leader A, McDonald S, Marrin M, Martin R, Min J, Mortimer D, Mortimer S, Smith J, **Tsang BK**, Van Vugt D and Yuzpe A (in alphabetical order). Incidence and complications of multiple gestation in Canada: proceedings of an expert meeting. Reproductive BioMedicine Online. Vol 14, No 6, 773-790 (2007).

D. Abstracts

1. **Tsang, B.K.**, Merali, Z., Sutherland, D.J.B. and Singhal, R.L. The influence of chronic cadmium on the cyclic AMP-adenyl cyclase-protein kinase system of rat testes and prostate glands. *Fed. Proc.* 33: 227 (1974)
2. **Tsang, B.K.** and Singhal, R.L. The cyclic AMP-dependent histone phosphorylation in canine prostate. *Annals Royal College Physicians Surgeons Canada* 7: 17 (1974)
3. **Tsang, B.K.** and Singhal, R.L. Beta-adrenergic stimulation of the adenylate cyclase-cAMP (AC-cAMP) system in rat ventral prostate (VP). *Proc. Can. Fed. Biol. Soc.* 18: 100 (1975)
4. Sutherland, D.J.B., **Tsang, B.K.** and Singhal, R.L. Regulation of adenylate cyclase and cyclic AMP-dependent protein kinase in androgen-dependent cells. In "Advances in Cyclic Nucleotide Research, Vol. 5" (ed. G.I. Drummond, P. Greengard and G.A. Robinson) Raven Press, New York, pp. 803 (1975)
5. **Tsang, B.K.**, Thakur, A.N. and Singhal, R.L. Vasectomy: some biochemical consequences in rat testis. *Soc. Exp. Biol. Med. Seventh Scientific Meeting of Champlain Section*, pp. 7 (1975)
6. Kacew, S., **Tsang, B.K.** and Singhal, R.L. Modulation in adenylyl cyclase-cyclic AMP-protein kinase system: A model for p,p'-DDT- induced hepatotoxicity. *Soc. Exp. Biol. Med. Seventh Scientific Meeting of Champlain Section*, pp. 5 (1975)
7. **Tsang, B.K.**, Thakur, A.N. and Singhal, R.L. Effects of vasectomy on cAMP metabolism in rat testis. *Annals Royal College Physicians Surgeons Canada* 9:32 (1976)
8. **Tsang, B.K.**, Lubek, B., Thakur, A.N. and Singhal, R.L. The influence of cyproterone acetate on male sexual tissues. *Soc. Exp. Biol. Med. Eighth Scientific Meeting of the Champlain Section*, pp. 5 (1976)
9. **Tsang, B.K.** and Singhal, R.L. Polyamine and cAMP metabolism in rat ventral prostate (VP) following administration of cyproterone acetate (CA). *Pharmacologist* 18: 164 (1976)
10. **Tsang, B.K.** and Singhal, R.L. Effect of cyproterone acetate (CA) on protein kinase (PK) and cAMP-binding activities of the rat ventral prostate. In "Advances in Cyclic Nucleotide Research", Vol. 9 (ed. W.J. George and L.J. Ignarro) Raven Press, New York, pp. 749 (1977)
11. **Tsang, B.K.** and Singhal, R.L. A biochemical assessment of the effects of vasectomy on male sexual tissues. *Canadian Association for Laboratory Animal Science, Convention '76, Toronto, (June 6-9)*, pp. 48 (1976)
12. Moon, Y.S., Simpson, C., **Tsang, B.K.**, Plunkett, E.R. and Armstrong, D.T. Synergistic effect of FSH and testosterone on estrogen production by human granulosa cells in culture. *33rd Annual Meeting of the Society of Obstetricians and Gynecologists of Canada, Montreal, Quebec, June 15 (1977)*
13. Simpson, C., Moon, Y.S., **Tsang, B.K.**, Plunkett, E.R. and Armstrong, D.T. Estrogen and androgen secretion by human granulosa and thecal cells in culture. *Joint Meeting of the Canadian Fertility and Andrology Societies, Val-David, Quebec, September 16-18 (1977)*
14. **Tsang, B.K.**, Henderson, K.M. and Armstrong, D.T. Danazol: A direct inhibitor of ovarian steroidogenesis. *34th Annual Meeting of the Society of Obstetricians and Gynecologists of Canada, Winnipeg, Manitoba (June 13-18)* pp. 13 (1978).

15. **Tsang, B.K.**, Simpson, C.W. and Armstrong, D.T. Androgen and cAMP production by human ovarian cells in vitro. 11th Annual Meeting of the Society for the Study of Reproduction, Carbondale, Illinois (August 8-10) pp. 66, Abst. No. 137 (1978)
16. **Tsang, B.K.**, Moon, Y.S. and Armstrong, D.T. Secretion of estradiol-17 β and androgen by isolated porcine ovarian cells in vitro. Fed. Proc. 37: 723 (1978)
17. **Tsang, B.K.** and Armstrong, D.T. Inhibition by estradiol-17 β (E) of luteinizing hormone (LH)-induced porcine thecal testosterone (T) production in vitro. Proc. Can. Fed. Biol. Soc. 21: (1978)
18. Ainsworth, L., Marcus, G.J., Downey, B.R., **Tsang, B.K.** and Armstrong, D.T. Effect of indomethacin on follicular fluid prostaglandin (PG) levels, ovulation and luteal function in prepubertal gilts induced to ovulate with PMSG/hCG. Workshop on Ovarian Follicular and Corpus Luteum Function, Miami Beach, Florida (June 11-13) pp. 48 (1978).
19. Boynton, A.L., Whitfield, J.F., Swierenga, S.H.H., **Tsang, B.K.** and MacManus, J.P. Calcium, cyclic AMP and the regulation of liver cell proliferation. Proceedings of 30th Annual Meeting of the Tissue Culture Association, Inc., Seattle, Washington (June 10-14) pp. 179, Abst. No. 55 (1979)
20. **Tsang, B.K.**, Rixon, R.H. and Whitfield, J.F. Cyclic AMP (cAMP) and DNA synthesis in rat parotid gland. Pharmacologist 21: 248 (1979)
21. **Tsang, B.K.**, Armstrong, D.T. and Whitfield, J.F. Steroid synthesis by human ovarian follicular cells in vitro. Proceedings of 62nd Annual Meeting of the Endocrine Society, Washington, D.C. (June 18-20) pp. 163, Abst. No. 354 (1980)
22. Ainsworth, L., **Tsang, B.K.**, Downey, B.R., Marcus, G.J., Armstrong, D.T. The PMSG/hCG treated prepubertal gilt as a model for the study of preovulatory follicle growth and maturation. Proceedings of IV Reinier de Graaf Symposium, Nijmegen, the Netherlands (August 20-22) pp. 28 (1981)
23. **Tsang, B.K.**, Ooi, T.C., and Spence, J.E.H. Regulation of human endometrial prostaglandin production in vitro. Scientific Program of the Annual Meeting of the Society of Obstetricians and Gynecologists of Canada and the Canadian Investigators in Reproduction, Quebec City, Quebec (June 15-20) pp. 16 (1981)
24. Carnegie, J.A. and **Tsang, B.K.** Calcium and the stimulation of ovarian steroidogenesis. Society for the Study of Reproduction Meeting, Corvallis, Oregon (August 11-13) pp. 47, Abst. No. 50 (1981)
25. **Tsang, B.K.**, Ainsworth, L., Downey, B.R., Marcus, G.J. and Armstrong, D.T. The role of prostaglandins in follicular maturation and ovulation in the gilt. IX International Symposium on Comparative Endocrinology, Hong Kong (December 7-11) pp. 156 (1981)
26. Boynton, A.L., Whitfield, J.F., **Tsang, B.K.** and MacManus, J.P. Roles of calcium, cyclic AMP, cyclic AMP-dependent protein kinases in the initiation of DNA synthesis. In "Advances in Cyclic Nucleotide Research", vol. 14 (ed. J.E. Dumont, P. Greengard and G.A. Robison), Raven Press, New York, pp. 682 (1981)
27. Carnegie, J.A. and **Tsang, B.K.** Role of calcium in FSH-stimulation of granulosa cell progesterone production. IVth Ovarian Workshop, Madison, Wisconsin (July 17-19). In "Factors Regulating Ovarian Function" (ed. G.S. Greenwald and P.F. Terranova), Raven Press, New York, pp. 375-379 (1982)

28. **Tsang, B.K.** and Carnegie, J.A. Calmodulin and the regulation of ovarian steroidogenesis. IVth Ovarian Workshop, Madison, Wisconsin (July 17-19). In "Factors Regulating Ovarian Function" (ed. G.S. Greenwald and P.F. Terranova), Raven Press, New York, pp. 369-373 (1982)
29. Carnegie, J.A. and **Tsang, B.K.** Calcium-dependent stimulation by FSH of rat granulosa cell steroidogenesis in vitro. Scientific Program of the Annual Meeting of the Society of Obstetricians and Gynecologists of Canada and the Canadian Investigators in Reproduction, Toronto, Ontario (June 14-19) pp. 11, Abst. No. 7 (1982)
30. **Tsang, B.K.**, Domingo, M.T. and Ooi, T.C. Control of human endometrial prostaglandin production in vitro. 5th International Conference on Prostaglandins, Florence, Italy (May 18-21) pp. 396 (1982)
31. **Tsang, B.K.**, Ainsworth, L., Downey, B.R. and Marcus, G.J. Differential production of steroids by isolated granulosa and thecal cells in vitro during preovulatory follicular development in the gilt. Society for the Study of Reproduction Meeting, Madison, Wisconsin (July 19-22) pp. 79, Abst. no. 86 (1982)
32. Carnegie, J.A. and **Tsang, B.K.** Calcium: A universal mediator in the regulation of granulosa cell steroidogenesis. 65th Annual Meeting of the Endocrine Society, San Antonio, Texas (June 8-10) pp. 297, Abst. No. 866 (1983)
33. **Tsang, B.K.** and Carnegie, J.A. The calcium-calmodulin system - a requirement in the regulation of steroidogenesis throughout granulosa cell differentiation. Scientific Program of the Annual Meeting of the Society of Obstetricians and Gynecologists of Canada and the Canadian Investigators in Reproduction, Vancouver, B.C. (June 14-18) pp. 22 (1983)
34. Mutter, J.G., Lemoine, J., **Tsang, B.K.** and Kucharczyk, J. Central angiotensin-induced water intake in the pig. Annual Meeting of the Canadian Federation of Biological Societies, Ottawa, Ontario (June 15-19) pp. 166, Abst. No. PO-21 (1983)
35. Carnegie, J.A., **Tsang, B.K.** and Henderson, C. Granulosa cell progesterone production in vitro: effects of a stimulator and an inhibitor of cellular calcium uptake. Annual Meeting of the Canadian Federation of Biological Societies, Ottawa, Ontario (June 15-19) pp. 44, Abst. No. PA-15 (1983)
36. Ainsworth, L., **Tsang, B.K.**, Downey, B.R. and Marcus, G.J. Prostaglandin production by preovulatory porcine follicles. Annual Meeting of the Society for the Study of Fertility, Manchester, England (July 12-15) Program and Abstracts of Papers, pp. 16 (1983)
37. **Tsang, B.K.** and Carnegie, J.A. Microtubules and the regulation of granulosa cell steroidogenesis. Annual Meeting of the Society for the Study of Reproduction, Cleveland, Ohio (August 7-10) pp. 61, Abst. No. 57 (1983)
38. Kucharczyk, J. and **Tsang, B.K.** Influence of endogenous estrogens and progesterone and angiotensin thirst in the cyclic pig. International Congress of Physiological Sciences, Sidney, Australia, August 26 - September 3 (1983)
39. Randall, G.C.B., Kendall, J.Z., **Tsang, B.K.**, and Taverne, M.A.M. Role of the fetal adrenal in the timing of parturition in the pig. 10th International Congress on Animal Reproduction and Artificial Insemination, Urbana, Illinois, June 10-14 (1984)
40. Domingo, M.T., **Tsang, B.K.**, Spence, J.E.H., Garner, P.R., Dudley, D.K. and Oxorn, H. Prostaglandin production by endometrial cells from menorrhagic subjects in vitro: influence of prostaglandin synthetase inhibitors. Scientific Program of the Annual Meeting of the Society of

- Obstetricians and Gynaecologists of Canada and the Canadian Investigators in Reproduction, Montreal, Quebec, June 19-23 (1984)
41. Levi, A.D.O., **Tsang, B.K.** and Downey, B.R. Calcium and the regulation of thecal androgen production by LH in vitro. Scientific Program of the Annual Meeting of the Society of Obstetricians and Gynaecologists of Canada and the Canadian Investigators in Reproduction, Montreal, Quebec, June 19-23 (1984)
 42. Carnegie, J.A. and **Tsang, B.K.** Microtubules, calcium and the control of granulosa cell steroidogenesis. 7th International Congress of Endocrinology, Quebec City, Quebec, July 1-7 (1984)
 43. Mattice, D.F. and **Tsang, B.K.** A reassessment of the role of calcium in FSH-stimulated granulosa cell progesterone production. Annual Meeting of the Society for the Study of Reproduction, Wyoming, July 24-26 (1984)
 44. Carnegie, J.A. and **Tsang, B.K.** Microtubules and the regulation of steroidogenesis during differentiation of rat granulosa cells. Scientific program of the 41st Annual Meeting of the Society of Obstetricians and Gynaecologists of Canada and the Canadian Investigators in Reproduction, Jasper, Alberta, June 10-15 (1985)
 45. Mattice, D.F. and **Tsang, B.K.** FSH regulation of granulosa cell progestin production in vitro: the involvement of calcium and protein synthesis. Scientific Program of the 28th Annual Meeting of the Canadian Federation of Biological Societies, Toronto, Ontario, June 17-21 (1985)
 46. Carnegie, J.A. and **Tsang, B.K.** Microtubules and the calcium-dependent regulation of granulosa cell steroidogenesis. Annual Meeting of the Society for the Study of Reproduction, Montreal, Quebec, July 23-25 (1985)
 47. **Tsang, B.K.** and Mattice, D.F. Gonadotropic regulation of progesterone synthesis and metabolism in rat granulosa cells: involvement of cyclic AMP, calcium and protein synthesis. Scientific Program of the Annual Meeting of the Canadian Fertility and Andrology Society, Val David, Quebec, September 26-28 (1985)
 48. Komorowski, J. and **Tsang, B.K.** Gonadotropic regulation of granulosa cell steroidogenesis in vitro: involvement of phospholipids and calcium. 6th Biennial Ovarian Workshop, Cornell University, Ithaca, New York, July 12-14 (1986)
 49. Carnegie, J.A. and **Tsang, B.K.** A reassessment of cytoskeletal involvement in granulosa cell steroidogenesis: a possible role for microfilaments. 6th Biennial Ovarian Workshop, Cornell University, Ithaca, New York, July 12-14 (1986)
 50. Taheri, A., **Tsang, B.K.**, Ainsworth, L. and Downey, B.R. Comparison of 17β -hydroxylase and C_{17-20} lyase activities in porcine granulosa and theca interna cells. 19th Annual Meeting of the Society for the Study of Reproduction, Cornell University, Ithaca, New York, July 15-17 (1986)
 51. Bagnell, C.A., Frando, L.B., Bryant-Greenwood, G.D., Downey, B.R., **Tsang, B.K.** and Ainsworth, L. Localization of relaxin in the pig follicle during preovulatory development. 19th Annual Meeting of the Society for the Study of Reproduction, Cornell University, Ithaca, New York, July 15-17 (1986)
 52. Jindal, S.K., Carnegie, J.A. and **Tsang, B.K.** Changes in shape-related parameters in cultured rat granulosa cells during progesterone production stimulated by dibutyryl cyclic AMP (Bu_2cAMP).

Annual Meeting of the American Fertility Society/Canadian Fertility and Andrology Society, Toronto, September 27 to October 2 (1986)

53. Asem, E.K. and **Tsang, B.K.** Calcium channel agonists BAY-K8644 and CGP-28392 and steroidogenesis in granulosa cells of the domestic hen. 7th International Washington Spring Symposium--Cell Calcium Metabolism '87, Washington, D.C., May 19-22 (1987)
54. Arodi, J., **Tsang, B.K.**, Li, M., Ainsworth, L., Srikandakumar, A. and Downey, B.R. Gonadotropic regulation of prostaglandin production by ovarian follicular cells of the pig. 43rd Annual Meeting of Society of Obstetricians and Gynaecologists of Canada/Canadian Investigators in Reproduction, Ottawa, June 24-27, 1987
55. Carnegie, J.A., Byard, R., Dardick, I, and **Tsang, B.K.** Investigations into cell shape and rat granulosa cell steroidogenesis: the collagen gel approach. 20th Annual Meeting of the Society for the Study of Reproduction, University of Illinois, Urbana, July 20-23 (1987)
56. Li, M., Carnegie, J.A. and **Tsang, B.K.** Cytochalasin B and the gonadotropic regulation of rat granulosa cell steroidogenesis in vitro. Annual Meeting of the Canadian Fertility and Andrology Society, Val David, Quebec, October 15-17 (1987)
57. Asem, E.K., Caldwell, D. and **Tsang, B.K.** Kaurenol and steroidogenesis in granulosa cells. Annual Meeting of the Canadian Fertility and Andrology Society, Val David, Quebec, October 15-17 (1987)
58. Jindal, S.K., Carnegie, J.A. and **Tsang, B.K.** Microtubules and cyclic-AMP-dependent regulation of granulosa cell steroidogenesis. Annual Meeting of the Canadian Fertility and Andrology Society, Val David, Quebec, October 15-17 (1987)
59. Schwartz, J.L., Asem, E.K., Mealing, G.A.R., **Tsang, B.K.** and Whitfield, J.F. Granulosa cells display electrical activity. 44th Annual Meeting of the Society for Obstetricians and Gynaecologists of Canada/Canadian Investigators in Reproduction, Vancouver, British Columbia, June 23-24 (1988)
60. Asem, E.K. and **Tsang, B.K.** Intracellular pH regulation in granulosa cells. 44th Annual Meeting of the Society for Obstetricians and Gynaecologists of Canada/Canadian Investigators in Reproduction, Vancouver, British Columbia, June 23-24 (1988)
61. Srikandakumar, A., Downey, B.R., **Tsang, B.K.**, Arodi, J., Li, M. and Ainsworth, L. Inhibition of prostaglandin production by dexamethasone in dispersed theca interna and granulosa cells from porcine follicles. Proceedings XI International Congress on Animal Reproduction and Artificial Insemination, Dublin, Ireland, 1: 197, June 26-30 (1988)
62. Asem, E.K., Li, M. and **Tsang, B.K.** Evidence for the existence of amiloride-sensitive Na^+/H^+ exchange in avian granulosa cells: effect of follicular development. 8th International Congress of Endocrinology, Kyoto, Japan, July 17-23 (1988)
63. Li, M., Asem, E.K. and **Tsang, B.K.** Amiloride-sensitive, sodium-dependent gonadotropic regulation of rat granulosa cell progesterin production in vitro. 8th International Congress of Endocrinology, Kyoto, Japan, July 17-23 (1988)
64. Asem, E.K., Li, M. and **Tsang, B.K.** Role of sodium in basal, LH-stimulated progesterone production in granulosa cells of rapidly growing ovarian follicles of the domestic hen (*Gallus domesticus*). 4th International Symposium on Avian Endocrinology '88, Tokyo, Japan, July 26-29 (1988)

65. Komorowski, J.I. and **Tsang, B.K.** Divergent effects of diacylglycerol and tumor promoting phorbol ester on ovarian steroidogenesis in vitro. 7th Ovarian Workshop, Tacoma, Washington, July 30-August 1 (1988)
66. Bagnell, C.A., Ayau, E., Downey, B.R., **Tsang, B.K.**, and Ainsworth L. Localization of relaxin during formation of the corpus luteum. 7th Ovarian Workshop, Tacoma, Washington, U.S.A., Abstr. 53, p. 43, July 30-August 1 (1988)
67. Asem, E.K., Schwartz, J.L., Mealing, G.A.R., Whitfield, J.F. and **Tsang, B.K.** Granulosa cells have a calcium-dependent potassium channel. 21st Annual Meeting of the Society for the Study of Reproduction, Seattle, Washington, August 1-4 (1988)
68. Schwartz, J.L., Mealing, G.A.R., Asem, E.K., **Tsang, B.K.** and Whitfield, J.F. Calcium channels in avian granulosa cells. Cellular Variations in Ca²⁺ Signaling Symposium, Toronto, August 12-13 (1988)
69. **Tsang, B.K.**, Jindal, S.K. and Carnegie, J.A. Relationship between granulosa cell morphology and steroidogenesis. Annual Meeting of Canadian Fertility and Andrology Society, Ville d'Estrel, Quebec, October 6-8 (1988)
70. Asem, E.K., Schwartz, J.L., Mealing, G.A.R., Whitfield, J.F. and **Tsang, B.K.** Potassium channels in chicken granulosa cells: possible modulation by luteinizing hormone. Symposium Excitation-Secretion Coupling, June 15-17 (1989)
71. Schwartz, J.L., Asem, E.K., Mealing, G.A.R., Whitfield, J.F., **Tsang, B.K.**, and Payet, M.D. Role des canaux calciques de la cellule granulosa. Symposium couplage Excitation-Secretion, Orford, Quebec, June 15-17 (1989)
72. Komorowski, J.I. and **Tsang, B.K.** Tumor promoting phorbol ester and diacylglycerol exert opposite actions on gonadotropin-stimulated granulosa cell steroid hormone product in vitro. 45th Annual Meeting of the Society of Obstetricians and Gynaecologists of Canada/Canadian Investigators in Reproduction, Quebec City, June 20-24 (1989)
73. Politis, I., Srikandakumar, A., Turner, J.D., **Tsang, B.K.**, Ainsworth, L. and Downey, B.R. Characterization of a porcine ovarian plasminogen activator inhibitor. Joint Annual Meeting of American Dairy Science Association and American Society of Animal Science, Lexington, Kentucky, July 31-August 4 (1989)
74. Asem, E.K., Schwartz, J.L., Mealing, G.A.R., Coleman, G.S.A., Whitfield, J.F., **Tsang, B.K.** and Payet, M.D. Calcium (Ca) and potassium (K) channels in chicken granulosa cells (GC) in primary culture. 22nd Annual Meeting of the Society for the Study of Reproduction, Columbia, Missouri, August 6-9 (1989)
75. Politis, I., Srikandakumar, A., Turner, J.D., **Tsang, B.K.**, Ainsworth, L. and Downey, B.R. Changes in the ovarian plasminogen activator system during preovulatory development in the PMSG/hCG-treated gilt. 22nd Annual Meeting of the Society for the Study of Reproduction, Columbia, Missouri, August 6-9 (1989)
76. **Tsang, B.K.**, Politis, I., Srikandakumar, A., Turner, J.D., Ainsworth, L., and Downey, B.R. Changes in and partial identification of the plasminogen activator and plasminogen activator inhibitor systems during ovarian follicular maturation in the pig. 46th Annual Meeting of the Society of Obstetricians and Gynaecologists of Canada/Canadian Investigators of Reproduction, Halifax, N.S., June 19-23 (1990)

77. Asem, E.K. and **Tsang, B.K.** Calcium ionophores increase intracellular pH in hen granulosa cells. VIII Ovarian Workshop, Maryville, Tennessee, July 12-14 (1990)
78. Wang, L. and **Tsang, B.K.** Differential regulation of granulosa cell PA activity by cyclic AMP and protein kinase C during follicular development. VIII Ovarian Workshop, Maryville, Tennessee, July 12-14 (1990)
79. Wang, L., Politis, I., Turner, J.D., and **Tsang, B.K.** Changes in tissue-type plasminogen activator-like and plasminogen activator inhibitor activities during ovarian follicle development in the domestic hen. Annual Meeting of the Canadian Fertility and Andrology Society, Ville d'Estrel, Quebec, October 3-6 (1990)
80. Schwartz, J.L., Asem, E.K., Mealing, G.A.R., **Tsang, B.K.**, and Whitfield. Ovarian granulosa cells are excitable. Tenth International Biophysics Congress, Vancouver, July 29-August 30 (1990)
81. Schwartz, J.L., Morley, P., Mealing, G.A.R., **Tsang, B.K.**, Whitfield, J.F. The role of chloride channels in chicken granulosa cells. 35th Meeting of the Biophysical Society, San Francisco, California, February 24-28 (1991)
82. Wang, L., **Tsang, B.K.** Follicular Cell Interaction in the Regulation of Plasminogen Activator (PA) Activity During Ovarian Follicular Development in the Hen. 47th Annual Meeting of the Society of Obstetricians and Gynaecologists of Canada/Canadian Investigators of Reproduction, Toronto, Ontario June 11-15 (1991)
83. Morley, P., Li, M., Coleman, G., Asem, E., **Tsang, B.K.** Effect of Growth Factors on Intracellular pH (pHi) and Progesterone Biosynthesis by Chicken Granulosa Cells. 47th Annual Meeting of the Society of Obstetricians and Gynaecologists of Canada/Canadian Investigators of Reproduction, Toronto, Ontario June 11-15 (1991)
84. Li, M., Morley, P., Asem, E.K. and **Tsang, B.K.** Epidermal growth factor elevates intracellular pH in chicken granulosa cells. 73rd Annual Meeting of the Endocrine Society, Washington, D.C. June 18-22, (1991)
85. Morley, P., **Tsang, B.K.**, Whitfield, J.F. and Schwartz, J.L. Carbachol increases chicken granulosa cell intracellular calcium, but does not affect cyclic adenosine 3'5'-monophosphate or progesterone production. 24th Annual Meeting of the Society for The Study of Reproduction, Vancouver, British Columbia, July 26-31 (1991)
86. Li, M., Morley, P. and **Tsang, B.K.** Does epidermal growth factor elevate intracellular pH in chicken granulosa cells by activating protein kinase C? 24th Annual Meeting of The Society for the Study of Reproduction, Vancouver, British Columbia, July 26-31 (1991)
87. Gibb, W., Nichols, K.C. and **Tsang, B.K.** Immunohistochemical distribution of the steroid 3 β hydroxysteroid dehydrogenasein (3 β HSD) in human placenta and fetal membranes. Annual Meeting of the Society for Gynecologic Investigation, San Antonio, Texas, March 20-23 (1991)
88. Schwartz, J.L., Morley, P., Mealing, G.A.R., **Tsang, B.K.** and Whitfield, J.F. The Role of chloride channels in chicken granulosa cells. 36th Meeting of the Biophysical Society, Houston, Texas, February (1992)
89. **Tsang, B.K.**, Li, M. and Morley, P. Increase in intracellular pH in Hen granulosa cell following epidermal growth factor stimulation: possible involvement of protein kinase C and tyrosine kinase. 48th Annual Meeting of the Society of Obstetricians and Gynaecologists of Canada/Canadian Investigators of Reproduction, Vancouver, British Columbia, June 8-13 (1992)

90. Li, M., Morley, P., Schwartz, J.L., Whitfield, J.F. and **Tsang, B.K.** Muscarinic cholinergic stimulation elevates intracellular pH in chicken granulosa cells by a Ca^{++} - dependent, Na^{+} -independent mechanism. IX Ovarian Workshop, Chapel Hill, North Carolina, July 9-11 (1992)
91. Lafrance, M., Zhou, L., and **Tsang, B.K.** Interaction of LH and Transforming growth factor alpha on progesterone secretion and plasminogen activator activity in avian granulosa cells during follicular development. IX Ovarian Workshop, Chapel Hill, North Carolina, July 9-11 (1992)
92. Morley, P., Whitfield, J.F., **Tsang, B.K.** and Schwartz, J.L. Estrogens rapidly increase intracellular calcium ion concentration in chicken granulosa cells. 25th Annual Meeting of the Society for the Study of Reproduction, Raleigh, North Carolina, July 12-15 (1992)
93. Lafrance, M., Croze, F. and **Tsang, B.K.** Effects of transforming growth factor alpha ($\text{TGF}\alpha$) on plasminogen activator activity in avian granulosa cells during folliculogenesis. 25th Annual Meeting of the Society for the Study of Reproduction, Raleigh, North Carolina, July 12-15 (1992)
94. Karakji, E., Croze, F. and **Tsang, B.K.** Effect of growth hormone releasing factor (GRF) and vasoactive intestinal peptide (VIP) *in vitro* on basal and FSH-stimulated rat granulosa cell plasminogen activator (PA) activity during ovarian follicular development. Annual Meeting of the Canadian Fertility and Andrology Society, Kananaskis, Alberta, November 25-28 (1992)
95. **Tsang, B.K.**, Zhou, L. and Lafrance, M.. Interactions of transforming growth factors alpha and beta and LH in the regulation of plasminogen activator activity in avian granulosa cells during follicular development. 49th Annual Meeting of the Society of Obstetricians and Gynaecologists of Canada, Ottawa, Ontario, June 22-26 (1993).
96. Li, J., Li, M., Lafrance, M. and **Tsang, B.K.** Inhibitory effect of cytokines (CK) on transforming growth factor alpha ($\text{TGF}\alpha$)-induced plasminogen activator activity in hen granulosa cells *in vitro* during follicular development. 26th Annual Meeting of the Society for the Study of Reproduction, Colorado State University, Fort Collins, Colorado, August 1-4, (1993)
97. Karakji, E. and **Tsang B.K.** Transforming growth factor (TGF) alpha stimulates rat granulosa cell plasminogen activator (PA) activity during folliculogenesis. 26th Annual Meeting of the Society for the Study of Reproduction, Colorado State University, Fort Collins, Colorado, August 1-4 (1993)
98. Karakji, E. and **Tsang, B.K.** Tumor necrosis factor ($\text{TNF}\alpha$) inhibits rat granulosa cell plasminogen activator (PA) activity *in vitro* during follicular development and ovulation. 49th Annual Meeting of The American Fertility Society/39th Annual Meeting of The Canadian Fertility and Andrology Society, Montreal, Quebec, October 9-14 (1993)
99. Li, J. and **Tsang, B.K.** The mitogenic effect of $\text{TGF}\alpha$ is mediated by prostaglandins in hen granulosa cell during ovarian follicular development. Xth Ovarian Workshop, Ann Arbor, Michigan, July 21-23 (1994)
100. Soboloff, J., Désilets, M., **Tsang, B.K.** The influence of muscarinic agonist carbachol on intracellular Ca^{2+} in chicken granulosa cells: Dependence on Follicular Maturation. Forty-first Annual Meeting of the Society of Gynaecologic Investigation, Chicago, Illinois, March 22-25 (1994)
101. Boone, D.L. and **Tsang, B.K.** Apoptosis in the ovary: a developmentally regulated, 20-25 kDa endonuclease in rat ovarian nuclei. Xth Ovarian Workshop, Ann Arbor, Michigan, July 21-23 (1994)

102. Karakji, E.G. and **Tsang, B.K.** Interleukin-1 β modulates the FSH-regulation of rat granulosa cell proliferative and differentiative activities in vitro during follicular development. Xth Ovarian Workshop, Ann Arbor, Michigan, July 21-23 (1994)
103. Soboloff, J., Désilets, M. and **Tsang, B.K.** The influence of the muscarinic agonist carbachol on intracellular Ca²⁺ in chicken granulosa cells: interaction with tumour necrosis factor alpha. Twenty-Seventh Annual Meeting of the Society for the Study of Reproduction, Ann Arbor, Michigan, July 24-27 (1994)
104. Li, J., Simmons, D.L. and **Tsang, B.K.** Cyclooxygenase II in hen granulosa cells is regulated by transforming growth factors during follicular development. 41st Annual Meeting of the Canadian Fertility and Andrology Society, Montebello, Quebec, September 20-23, 1995.
105. Li, J., Simmons, D.L. and **Tsang, B.K.** Regulation of prostaglandin production by transforming growth factors in hen granulosa cell mitogenic response: role of cyclooxygenase II. 4th International Conference on Eicosanoids & Other Bioactive Lipids in Cancer, Inflammation & Radiation Injury, Hong Kong, October 4-7, 1995.
106. **Tsang, B.K.**, Soboloff, J.A., Wade, M.G., Sorisky, A. and Désilets, M. Ca²⁺ signalling in avian granulosa cells during ovarian follicular development. VI International Symposium on Avian Endocrinology, Lake Louise, Alberta, March 31 - April 5, 1996.
107. **Tsang, B.K.**, Boone, D.L., The possible involvement of DNase I in ovarian apoptosis, International Symposium on Cell Death in Reproductive Physiology. Chicago, Illinois, April 11-14, 1996.
108. Kim, J-M and **Tsang, B.K.**, Regulation of the FAS-FAS ligand system in rat granulosa cells during follicular development. International Symposium on Cell Death in Reproductive Physiology, Chicago, Illinois, April 11-14, 1996.
109. Boone, D.L. and **Tsang, B.K.** Anti-eCG antibody rapidly induces apoptosis and decreases nuclear DNase I levels in rat ovarian follicles in vivo. International Symposium on Cell Death in Reproductive Physiology, Chicago, Illinois, April 11-14, 1996.
110. Soboloff, J., Sorisky, A., Désilets, M. and **Tsang, B.K.** TNF α -induced sphingomyelin degradation in avian granulosa cells. 29th Annual Meeting of the Society for the Study of Reproduction, London, Ontario, July 27-30, 1996.
111. Kim, J-M and **Tsang, B.K.** Expression and localization of FAS ligand in the rat ovary during follicular development and atresia. 29th Annual Meeting of the Society for the Study of Reproduction, London, Ontario, July 27-30, 1996.
112. Boone, D.L., Wong, E. and **Tsang, B.K.** Identification and localisation of DNase I in the rat ovary. 29th Annual Meeting of the Society for the Study of Reproduction, London, Ontario, July 27-30, 1996.
113. Li, M., Karakji, E.G., Xing, R., Rabbani, S.A., Carnegie, J.A., Wade, W. and **Tsang, B.K.** Urokinase receptor (uPAR) expression in the ovary during follicular development. 29th Annual Meeting of the Society for the Study of Reproduction, London, Ontario, July 27-30, 1996.
114. Li, J. and **Tsang, B.K.** Regulation of cytosolic phospholipase A₂ in granulosa cells by transforming growth factors in vitro during follicular development. 29th Annual Meeting of the Society for the Study of Reproduction, London, Ontario, July 27-30, 1996.

115. Auyeung, A., Boone, D.L., Kim, J.M. and **Tsang, B.K.** Localisation of Fas antigen and apoptosis in rat ovarian follicles. XIth Ovarian Workshop: Ovarian Cell Growth, Apoptosis and Cancer, London, Ontario, July 24-26, 1996.
116. Manchanda, R., Kim, J.M. and **Tsang, B.K.** Transforming growth factor γ inhibits apoptosis in hen granulosa cells. XIth Ovarian Workshop: Ovarian Cell Growth, Apoptosis and Cancer, London, Ontario, July 24-26, 1996.
117. Kim, J.M. and **Tsang, B.K.** Down regulation of Fas-Fas ligand system and suppression of granulosa cell apoptosis in rat ovary by diethylstilbesterol. XIth Ovarian Workshop: Ovarian Cell Growth, Apoptosis and Cancer, London, Ontario, July 24-26, 1996.
118. Karakji, E.G., Li, M., Xing, R., Rabbani, S.A., Carnegie, J., Fryer, J. and **Tsang, B.K.** Ovarian expression of plasminogen activators (PA) and PA inhibitor (PAI) during follicular development. XIth Ovarian Workshop: Ovarian Cell Growth, Apoptosis and Cancer, London, Ontario, July 24-26, 1996.
119. Karakji, E.G., Li, J. and **Tsang, B.K.** Molecular Mechanisms of Ovulation. Tenth World Congress on *In Vitro* Fertilization and Assisted Reproduction. Vancouver, British Columbia, May 24-28, 1997.
120. Magun, R., Boone, D.L., **Tsang, B.K.** and Sorisky, A. Apoptosis of 3T3-L1 cells is dependent on stage of differentiation. 57th Scientific Sessions of the American Diabetes Association, Boston, Massachusetts, June 21-24, 1997.
121. Kim, J.M., Li, J., Liston, P., Li, M., Mackenzie, A.E., Korneluk, R.G. and **Tsang, B.K.** Expression of inhibitor of apoptosis proteins (IAPs) in rat granulosa cells during follicular development and atresia. 30th Annual Meeting of the Society for the Study of Reproduction, Portland, Oregon, August 2-5, 1997.
122. Schneiderman, D., Kim, J.M. and **Tsang, B.K.** Involvement of the Fas/FasL system and apoptosis in chemoresistance in human ovarian epithelial cancer. 30th Annual Meeting of the Society for the Study of Reproduction, Portland, Oregon, August 2-5, 1997.
123. Li, J., Li, M., Attisano, L., Wrana, J.L. and **Tsang, B.K.** MADR2 expression in avian granulosa cells is up-regulated by TGF β during ovarian follicular development. 30th Annual Meeting of the Society for the Study of Reproduction, Portland, Oregon, August 2-5, 1997.
124. Feng, Q., Liu, Y-X, Hu, Z-Y, Kim, J-M and **Tsang, B.K.**, Localization of Fas and Fas ligand mRNA and proteins in granulosa cells undergoing apoptosis in atretic follicles of rhesus monkey. 30th Annual Meeting of the Society for the Study of Reproduction, Portland, Oregon, August 2-5, 1997.
125. Li, J., Kim, J-M, Liston, P., Mackenzie, A.E., Korneluk, R.G. and **Tsang, B.K.** Molecular and Cellular Basis of Ovarian Apoptosis, 7th International Symposium of the Society of Chinese Bioscientists in America (SCBA), Toronto, Ontario, July 6-11, 1997.
126. Magun, R., Boone, D.L., **Tsang, B.K.** and Sorisky, A. Apoptosis of 3T3-L1 cells is dependent on stage of differentiation. 57th Scientific Sessions of the American Diabetes Association, Boston, Massachusetts, June 21-24, 1997.
127. Boone, D.L. and **Tsang, B.K.** Localization of apoptosis, DNase I and caspase-3 in the rat ovary. 37th Annual Meeting of the American Society of Cell Biology, Washington, DC, December 13-17, 1997.

128. **Tsang, B.K.**, Li, J., Feng, Q., Liston, P., Kim, J-M, Schneiderman, D., Senterman, M., Vanderhyden, B., Faught, W., Fung Kee Fung M. and Korneluk, R.G. Regulation of Apoptosis in Human Ovarian Cancer. 45th Annual Meeting of the Society for Gynecologic Investigation, Atlanta, Georgia, March 11-14, 1998.
129. Sasaki, H., Li, J., Sheng, Y-L, Feng, Q., Schneiderman, D., Kim, J-M, Liston, P., Korneluk, R., Kotsuji, F. and **Tsang, B.K.** Chemoresistance in Human Ovarian Cancer: Possible Role of Inhibitor of Apoptosis Proteins. The 4th Sapporo International Symposium on Ovarian Function, Sapporo, Japan, August 7-8, 1998.
130. Kim, J-M, Li, J., Boone, D., Asselin, E., Liston, P., Korneluk, R., Yoon, Y-D. and **Tsang, B.K.** Ovarian Follicular Development and Atresia: Life and Death Decisions of the Granulosa Cells. The 4th Sapporo International Symposium on Ovarian Function, Sapporo, Japan, August 7-8, 1998.
131. Sasaki, H., Kotsuji, F. and **Tsang, B.K.** Caspase-3-mediated focal adhesion kinase processing during cisplatin-induced apoptosis in human ovarian cancer cells. Annual Meeting of the Endocrine Society, San Diego, California, June 12-15, 1999.
132. **Tsang, B.K.**, Sheng, Y-L, Sasaki, H., Li, J.L., Schneiderman, D., Kim J-M, Liston, P., Fung Kee Fung, M., Faught, W., Senterman, M., Korneluk, R. and Kotsuji, F. X-linked inhibitor of apoptosis protein in human ovarian cancer: chemoresistance and a possible target for gene therapy. 55th Annual Meeting of the Society of Obstetricians and Gynaecologists of Canada, Ottawa, Canada, June 25-29, 1999.
133. Sasaki, H., Kotsuji, F. and **Tsang, B.K.** Cisplatin-induced focal adhesion kinase breakdown in human ovarian cancer cells. Ovarian Cancer Forum'99 "Confronting the disease that whispers", Toronto, Ontario, Canada, May 5-8, 1999.
134. **Tsang, B.K.**, Sheng, Y-L, Sasaki, H., Li, J.L., Schneiderman, D., Kim J-M, Senterman, M., Liston, P., Fung Kee Fung, M., Faught, W., Korneluk, R. and Kotsuji, F. X-linked inhibitor of apoptosis protein in human ovarian cancer: chemoresistance and a possible target for gene therapy. Ovarian Cancer Forum'99, "Confronting the disease that whispers", Toronto, Ontario, Canada, May 5-8, 1999.
135. **Tsang, B.K.** Life and Death Decisions of the Granulosa Cell: Cellular Determinants of Ovarian Follicular Development and Atresia. Annual Meeting of the Japan Society of Animal Reproduction, Sendai, Japan, September 27-30, 1999.
136. Xiao, C-W and **Tsang, B.K.** X-linked Inhibitor of Apoptosis Protein prevents tumour necrosis factor α - induced apoptosis in rat granulosa cells. Conjoint Annual Meeting of the American Society for Reproductive Medicine and the Canadian Fertility and Andrology Society, Toronto, Ontario, Canada, September 25-30, 1999.
137. Qiu, Q., Gruslin, A., Shao, L., and **Tsang, B.K.** Immunolocalization and quantification of soluble Fas ligand in placenta of normal and growth restricted fetuses. 47th Annual Meeting of the Society for Gynaecologic Investigation, Chicago, Ill., March 22-25, 2000.
138. Gruslin, A., Qiu, Q., Shao, L., and **Tsang, B.K.** Immunolocalization and possible role of Xiap in the regulation of placental apoptosis throughout development. 47th Annual Meeting of the Society for Gynaecologic Investigation, Chicago, Ill., March 22-25, 2000.
139. Sasaki, H., Sheng, Y., Kotsuji, F., and **Tsang, B.K.** Down-regulation of X-linked inhibitor of apoptosis protein by adenoviral antisense expression induces apoptosis in chemoresistant human

ovarian cancer cells in vitro: a pivotal role of p53. 47th Annual Meeting of the Society for Gynaecologic Investigation, Chicago, Ill., March 22-25, 2000.

140. Liu, S.S., Cheung, A.N.Y., **Tsang, B.K.**, and Ngan, H.Y.S. The correlation between antiapoptotic proteins (Hiap-2 and Xiap) with apoptotic and proliferative indexes and their prognostic significance in cervical cancer. 91st Annual Meeting for the American Association for Cancer Research, San Francisco, CA, April 1-5, 2000.
141. Asselin, E., Sasaki, H., Kotsuji, F., and **Tsang, B.K.** Involvement of X-linked inhibitor of apoptosis protein (Xiap) in chemoresistance in epithelial ovarian cancer cells: role of phosphatidylinositol 3-kinase (PI-3K) pathway. 91st Annual Meeting for the American Association for Cancer Research, San Francisco, CA, April 1-5, 2000.
142. Xiao, C., and **Tsang, B.K.** NF6B-mediated induction of fllice-like inhibitory protein (FLIP) by tumor necrosis. 33rd Annual Meeting of the Society for the Study or Reproduction, Madison, WI., July 15-18, 2000.
143. O, W.S., Wang, Y.F., and **Tsang, B.K.** Is X-linked inhibitor of apoptosis protein (Xiap) a determinant of ovarian failure in galactosemic rats? 33rd Annual Meeting of the Society for the Study or Reproduction, Madison, WI., July 15-18, 2000.
144. Lai, K.W., Cheng, L., **Tsang, B.K.** and O, W.S. Galactosemia and rat granulosa cell apoptosis. 33rd Annual Meeting of the Society for the Study or Reproduction, Madison, WI., July 15-18, 2000.
145. Wang, Y.F., O, W.S., and **Tsang, B.K.** Role and gonadotropic regulation of inhibitor of apoptosis proteins (IAP) during follicular development in vitro. 33rd Annual Meeting of the Society for the Study or Reproduction, Madison, WI., July 15-18, 2000.
146. Wang, Y.F. and **Tsang, B.K.** TGF α involved in the gonadotropic regulation of ovarian inhibitor of apoptosis protein (IAP) expression and follicular growth? XIII Ovarian Workshop, Madison, WI., July 12-14, 2000.
147. Xiao, C.W. and **Tsang, B.K.** Resistance of human ovarian surface epithelial (hOSE) cancer cell against tumor necrosis factor α (TNF α) is due to the induction of NF κ B-mediated fllice-like inhibitory protein (FLIP). XIII Ovarian Workshop, Madison, WI., July 12-14, 2000.
148. Soumano, K., Moir D., Kumarathasan, P., Cooke, G., Leingartner, K., Charbonneau, M., **Tsang, B.K.** and Desaulniers D. Effects of organochlorines on the metabolism of estrogen: development of techniques. 33rd Annual Symposium of the Society of Toxicology of Canada, Montreal, Canada, December 7-8, 2000.
149. Wang, Y.F., Chan, S. and **Tsang, B.K.** Role of NF κ B in gonadotropic regulation of X-linked inhibitor of apoptosis protein (Xiap) expression in rat ovarian granulosa cells *in vitro*. 34rd Annual Meeting of the Society for the Study or Reproduction, Ottawa, Canada, July 28 - August 1, 2001.
150. Desaulniers, D., Musicki, B., Charbonneau, M., **Tsang, B.K.** Effects of neonatal exposure to mixtures of non-ortho-chlorinated PCBs, PCDDs and PCDFs in 21-day old female rats. Annual Meeting of the Society of Toxicology, San Francisco, California, March 2001.
151. Desaulniers, D., Leingartner, K., Odorozzi, T., Musicki, B., **Tsang, B.K.** Charbonneau, M., Yagminas, A. Hepatic cytochrome P450 1A1, 2B1/2, AND 3A2/3 induction and suppression following neonatal treatment with mixtures of non-ortho polychlorinated-biphenyls, -

- dibenzodioxins and dibenzofurans in 21-day female rats. 44th Annual Meeting of the Canadian Federation of Biological Society, Ottawa, Canada, June 21-23, 2001.
152. Gruslin, A., Qiu, Q., **Tsang, B.K.** Maternal serum concentration of soluble Fas ligand and abnormal placental development. 48th Annual Meeting of the Society for Gynaecologic Investigation, Toronto, Canada, March 14-17, 2001.
 153. Qiu, Q., Gruslin, A. **Tsang, B.K.** Role of MMP-7 in the processing of mFasL in the placenta. 48th Annual Meeting of the Society for Gynaecologic Investigation, Toronto, Canada, March 14-17, 2001.
 154. Wang, Y.F., Chan, S. and **Tsang, B.K.** Involvement of Inhibitory Nuclear Factor- κ B (NF κ B)-independent NF κ B activation in the gonadotropic regulation of X-linked inhibitor of apoptosis protein expression during ovarian follicular development in vitro. Proceedings of the XIV Ovarian Workshop, pp 31, Baltimore, Maryland, July 25 - 27, 2002 (Abstract B11).
 155. Leung, B.M. and **Tsang, B.K.** The possible role of Akt in Xiap-mediated chemoresistance in human ovarian surface epithelial (hOSE) carcinoma cells. Proceedings of the XIV Ovarian Workshop, pp 38, Baltimore, Maryland, July 25 - 27, 2002 (Abstract D18).
 156. Leung, B.M. and **Tsang, B.K.** Possible role of Akt in Xiap-mediated chemoresistance in human ovarian cancer cells. Biol. Reprod. 66 (supplement 1): 20, 2002 (Abstract 36).
 157. Fraser, M., and **Tsang, B.K.** Overexpression of X-linked Inhibitor of Apoptosis Protein Increases Integrin-Linked Kinase Content in Human Ovarian Cancer Cells. Canadian Fertility and Andrology Society, Annual Meeting, La Malbaie, QC . 2002.
 158. Yan, X., Wu Xiao, C., Sun, M., **Tsang B.K.** and Gibb, W. Nuclear Factor Kappa B Activation and Regulation of Cyclooxygenase-2 Expression in Human Amnion Mesenchymal Cells by Interleukin-1 β *in vitro*. 45th Annual Meeting of the Canadian Federation of Biological Societies, Montreal, 2002.
 159. Qiu Q., **Tsang B.K.** Gruslin A. The role of Fas Ligand in the Interaction of Extravillous Trophoblast and Maternal Leukocytes: Immune Privilege and Control of Invasion. Society for Gynecologic Investigation 47th Annual Meeting, Washington, DC, March 26-30, 2003.
 160. Gruslin A., Qiu Q., **Tsang B.K.** Possible Role of EGFR-PI3K-AKT Pathway in the Regulation of Trophoblast Invasion. Society for Gynecologic Investigation 47th Annual Meeting, Washington, DC, March 26-30, 2003.
 161. Fraser M., Leung B., Yan X., Cheng J.Q., and **Tsang B.K.** Status is a Determinant of Akt-Mediated Chemoresistance in Human Ovarian Cancer p53. 94th Annual Meeting of the American Association for Cancer Research, Toronto, ON, 2003.
 162. Jiang J.Y. and **Tsang B.K.** Strain-specific requirements for successful rat in vitro fertilization. Biology of Reproduction 68 (suppl 1):164. 36th SSR Annual Meeting, Abstract No. 126, Cincinnati, Ohio, USA July 19-22, 2003.
 163. Cheung, C.K.M., Hattori, N., Shiota, K., and **Tsang, B.K.** Gonadotropic regulation of proliferation-associated leucine-rich protein 31 content and processing during ovarian follicular development and atresia. 36th SSR Annual Meeting, Cincinnati, Ohio, USA July 19-22, 2003.

164. Xu, G., Munir, S., **Tsang, B.K.**, Peng, C. Inhibitory effect of type I serine/threonine kinase receptor ALK7 on ovarian cancer cell proliferation. 94th Annual Meeting of the American Association for Cancer Research, Toronto, ON, 2003.
165. Abedini MR., Qiu Q, Yan X and **Tsang BK**. The role and regulation of FLICE-Like Inhibitory Protein (FLIP) in chemoresistant ovarian cancer cells in vitro. 95th Annual Meeting of the American Association for Cancer Research, Orlando, Fl, March 27-31, 2004.
166. Dan HC., Sun M, Kaneko S, Feldman RI, Nicosia SV, Wang HG, **Tsang BK.**, Cheng JQ. Akt Phosphorylation and Stabilization of XIAP, a Major Mechanism of Akt Induces Cell Survival at Post-mitochondrial Level. 95th Annual Meeting of the American Association for Cancer Research, Orlando, Fl, March 27-31, 2004.
167. Fraser M, Chan SL, Fiscus RR., and **Tsang BK**. Down-regulation of XIAP and induction of apoptosis by the soluble guanylyl cyclase inhibitor ODQ in human ovarian cancer cells. 95th Annual Meeting of the American Association for Cancer Research, Orlando, Fl, March 27-31, 2004.
168. Yan X and **Tsang BK**. Over-expression of PTEN Sensitizes Chemoresistant Human Ovarian Cancer Cells to Cisplatin-induced Apoptosis. Proceedings of the XV Ovarian Workshop, Vancouver, British Columbia, July 29-31, 2004.
169. Jahani-asl A, Basak A, and **Tsang BK**. Novel Caspase-3 Cleavage Sites in Akt: Influence of Phosphorylation. Proceedings of the XV Ovarian Workshop, Vancouver, British Columbia, July 29-31, 2004.
170. Yang X and **Tsang BK**. Akt-mediated Chemoresistance in Ovarian Cancer: Possible Involvement of Suppressed Cisplatin-induced Mitochondrial Release of Second Mitochondria-derived Activator of Caspases (Smac). Proceedings of the XV Ovarian Workshop, Vancouver, British Columbia, July 29-31, 2004.
171. Orisaka M, Jiang J-Y, Kotsuji F, and. **Tsang BK**. Growth differentiation Factor-9 (GDF-9) facilitates preantral follicle development. Proceedings of the XV Ovarian Workshop, Vancouver, British Columbia, July 29-31, 2004.
172. Laoag-Fernandez JB, Motoyama S, Hamada AL, Hamana S, **Tsang BK** and Maruo T. Gleevec sensitizes ovarian cancer cells to CDDP. Annual Meeting of the Japan Society of Obstetrics & Gynecology, Japan, April, 2004.
173. Orisaka M, Orisaka S, Jiang JY, Kotsuji F and **Tsang BK**. GDF-9 is anti-apoptotic during follicular development from preantral to early antral stage. ESHRE Campus symposium on "Mammalian oogenesis and folliculogenesis", Domaine des Vaux de Cernay, Paris, France, March 31- April 2, 2005.
174. Wang HM, Peng C and **Tsang BK**. Regulation of rat granulosa cell apoptosis by Nodal/ALK7 signalling pathway. 38th SSR Annual Meeting, Quebec City, Quebec, Canada, July 24-27, 2005.
175. Gregory-Bass RC, Xu W, Stiles J, Zeleznik A, **Tsang BK** et al. Adenovirus-directed overexpression of prohibitin mediates staurosporine-induced apoptosis in ovarian cancer. 38th SSR Annual Meeting, Quebec City, Quebec, Canada, July 24-27, 2005.

176. Branch A, Chowdhury I, Ford B, **Tsang BK** et al. Dynamic expression of neuregulin-1 and the ERBB family of receptors during folliculogenesis in the rat ovary. 38th SSR Annual Meeting, Quebec City, Quebec, Canada, July 24-27, 2005.
177. Qiu, Q, Mbikay M, Basak A, **Tsang BK**, Gruslin A. ProIGFR-II Processing in Human Placenta: The Expression and Role of Proprotein Convertase PC4. 52nd Annual Meeting of the Society for Gynecologic Investigation, Los Angeles, CA, March 26-30, 2005.
178. Al Bahlani S, Fraser M and **Tsang BK**. Role of p53 in CDDP-induced apoptosis in ovarian cancer cells. 3rd National Conference on Ovarian Cancer Research, Vancouver, BC, Canada May 13-16, 2006.
179. Jiang J-Y, Xiong HL, Xia XH, Sirard M-A, **Tsang BK**. Granulosa cell gene expression associated with oocyte developmental competence. 52nd Annual Meeting of the Canadian Fertility and Andrology Society, Ottawa, Canada on November 15-18, 2006.
180. Abedini MR and **Tsang BK**. The role and regulation of Flice-like inhibitory protein (FLIP) in chemoresistant ovarian cancer cells in vitro: possible involvement of Akt and p53. 52nd Annual Meeting of the Canadian Fertility and Andrology Society, Ottawa, Canada on November 15-18, 2006.
181. Wang YF, Heddon G, Spacek A, Leveillé MC, **Tsang BK** and Leader A. Does X-ray scan compromise the quality of gametes during cross-border transportation? 53rd Annual Meeting of the Canadian Fertility and Andrology Society, Halifax, Canada on September 26-29, 2007.
182. Kobayashi N, Orisaka M, Kotsuji F, Leader A, Sakuragi N and **Tsang BK**. Regulation of rat preantral follicular development by FSH and Thyroid Hormone: involvement of Growth differentiation factor-9. 53rd Annual Meeting of the Canadian Fertility and Andrology Society, Halifax, Canada on September 26-29, 2007.
183. Haider M, Qiu Q, Bani-Yaghoub M, **Tsang BK** and Gruslin A. Characterization of Numb Expression in the Human Placenta. 54th Annual Meeting of the Society for Gynecologic Investigation, Reno, Nevada, USA, March 14-17, 2007.
184. Woo MG, Bai T and **Tsang BK**. Chemoresistance in Ovarian Cancer: Possible involvement of Parc and GRP75 in intracellular p53 trafficking and regulation of the p53-dependent mitochondrial death pathway. XVIIth Ovarian Workshop: Ovarian Differentiation, Development, Function, and Persistence, San Antonio, Texas, USA on July 19 - 21, 2007.
185. Abedini MR and **Tsang BK**. Akt down-regulates CDDP-induced, p53-dependent FLIP ubiquitination and degradation in ovarian cancer cells. Fourth Japan-Canada Bilateral Workshop on Human reproduction & reproductive Biology, Hirosaki, Japan, July 31 - August 2, 2007.
186. Qiu Q, Haider M, Bani-Yaghoub M, **Tsang BK** and Gruslin A. Identification of novel isoforms on Numb in the human placenta. Fourth Japan-Canada Bilateral Workshop on Human reproduction & reproductive Biology, Hirosaki, Japan, July 31 - August 2, 2007.
187. Qiu Q, Jiang JY, Bell M, **Tsang BK** and Gruslin A. Activation of endoproteolytic processing of IGF-II in fetal, early postnatal and pregnant rats and persistence of circulating levels in postnatal life. Fourth Japan-Canada Bilateral Workshop on Human reproduction & reproductive Biology, Hirosaki, Japan, July 31 - August 2, 2007.

188. Woo MG, Bai T and **Tsang BK**. Possible involvement of p53-interacting proteins in the regulation of the mitochondrial p53 uptake and p53-mediated transcription-independent death pathway in chemoresistant ovarian cancer. Fourth Japan-Canada Bilateral Workshop on Human reproduction & reproductive Biology, Hirosaki, Japan, July 31 - August 2, 2007.
189. Woo MG, Sham D and **Tsang BK**. Role of Parc and its Processing in the Regulation of Chemosensitivity in Ovarian Cancer MAKING CONNECTIONS: A Canadian Cancer Research Conference Celebrating NCIC's 60th Anniversary, Toronto, Canada, November 15-17, 2007
190. Al Bahlani S, Lin T, Fraser M and **Tsang BK**. The Role p73 in CDDP-induced Apoptosis in Ovarian Cancer Cells. MAKING CONNECTIONS: A Canadian Cancer Research Conference Celebrating NCIC's 60th Anniversary, Toronto, Canada, November 15-17, 2007