# Curriculum Vitae

### Education

Bachelor of Science in Pharmacy, University of Toronto	1978
Ph.D. University of Toronto	1988
Dissertation: The Use of Microindentation Techniques to Assess the Ability of Pharmaceutical Crystals to Form Strong Compacts	
Postdoctoral Fellow University of Toronto, Surface Thermodynamics, Department of Me- chanical Engineering	1989
Awards and Honors Received	
AAUW – Named as one of 250 notable women who have contributed to the City of St. Louis over the last 250 years	2015
Fellow, National Academies of Practice	2015
Lyman Award	2006
Ebert Prize	2000
AACP Teaching Innovations Award	1996
Association of Faculties of Pharmacy in Canada -Upjohn Junior Investigator Award (Best Junior Pharmacy Investigator in Canadian Schools of Pharmacy for 1994)	1994
University of Toronto Senior Alumni Teaching Award	1992
University of Toronto Open Fellowship	1985
Parke-Davis Award	1985

#### Parke-Davis Award

# Employment

California Health Sciences University, Provost	2015-
Drake University College of Pharmacy and Health Sciences, Dean and Professor	2013-2015
St. Louis College of Pharmacy, Vice President, Academic Affairs, Dean of Pharmacy and Professor	2007-2013
St. Louis College of Pharmacy, Dean of Pharmacy and Professor	2006-2007
Auburn University, Associate Professor with tenure	2006
Associate Dean for Education, Director, Office of Teaching, Learning and Assessment, Auburn University Harrison School of Pharmacy	2005-2006
Assistant Dean for Education, Director, Office of Teaching, Learning and Assessment, Auburn University Harrison School of Pharmacy	2003-2005
President, Crux Consulting / Grian Facilitations	1995-2003
School of Pharmacy, Texas Tech University, Assistant Dean for Student Outcomes As- sessment and Associate Professor	1995-1996

Faculty of Pharmacy, University of Toronto, Associate Professor, Status	1995-2000
Faculty of Pharmacy, University of Toronto, Associate Professor with tenure	1994-1995
School of Pharmacy, Temple University, Adjunct Professor	1990-1992
Faculty of Pharmacy, University of Toronto, Assistant Professor	1989-1994
Ontario College of Pharmacists (Training report grader, English proficiency examiner, training report development)	1981-1995
MacInnes Pharmacy (Manager)	1982-1983
Mississauga Hospital, staff pharmacists	1981-1982
MacInnes Pharmacy (Manager)	1979-1981

### **Professional Development**

Alverno College - Assessment as Learning	1991
Pacific Crest – Teaching Institute	1992
Psychometrics Canada – Qualification for MBTI Administration	1993
Psychometrics Canada – The Wisdom of Diversity	1995
Institute of Logotherapy – Introduction to Logotherapy	1995
Leadership Amarillo	1996
2 <sup>nd</sup> Annual Worldwide Lessons in Leadership, Oct 23-24	1997
Pacific Crest – Facilitator's Institute	2004
Bryn Mawr Summer Institute for Women in Higher Education Administration	2006
Pacific Crest – Curriculum Design Institute	2007
Pacific Crest – Assessment Institute	2007
Associat ion for Institut ional Research – Data and Decisions Academy – Fundamentals of Data Management	2012
American Council for Education – Chief Academic Officer Institute	2015
UC Berkeley Center for Executive Education – Creating the future: building a sustainable or- ganization	2016
Pacific Crest – Process Education Institute	2016

### Scholarship

#### Peer Reviewed Journal Publications

- W.C. Duncan-Hewitt and D.J.W. Grant. True Density and Thermal Expansivity of Pharmaceutical Solids: Comparison of Methods and Assessment of Crystallinity. Int. J. Pharm. 28 (1986) 75-84
- 2. W.C. Duncan-Hewitt and D.J.W. Grant. The Impact Fracture Wear Test: A Novel Method of Tablet Evaluation. *PowderTechnology*, 52(1987) 17-28

- 3. W.C. Duncan-Hewitt and G.C. Weatherly. Evaluating the Fracture Toughness of Sucrose Crystals Using Microindentation Techniques, *Pharm.Res.* 6 (1989) 373-378
- W.C. Duncan-Hewitt and G.C. Weatherly, Evaluating the Hardness, Young's Modulus, and Fracture Toughness of some Pharmaceutical Crystals Using Microindentation Techniques. J. Mat. Sci. Letters, 8 (1989) 1350-1352
- 5. W.C. Duncan-Hewitt, Z. Policova, P. Cheng, E.I. Vargha-Butler, and A.W. Neumann. Semiautomatic Measurement of Contact Angles on Cell Layers by a Modified Axisymmetric Drop Shape Analysis. *Colloids and Surfaces*, 42 (1989) 391-403.
- 6. W.C. Duncan-Hewitt, and G.C. Weatherly. Evaluating the Deformation Kinetics of Sucrose Crystals Using Microindentation Techniques, *Pharm Res.*, 6 (1989) 1060-1066.
- 7. W.C. Duncan-Hewitt and G.C. Weatherly. Modeling the Uniaxial Compaction of Pharmaceutical Powders Using the Mechanical Properties of Single Crystals I: Ductile Materials, J. Pharm Sci., 79 (1990) 147-152.
- 8. W.C. Duncan-Hewitt and G.C. Weatherly. Modeling the Uniaxial Compaction of Pharmaceutical Powers Using the Mechanical Properties of Single Crystals II: Brittle Materials, *J. Pharm Sci.*, 79 (1990) 273-278.
- W.C. Duncan-Hewitt. Predicting the Relative Rate of Wear of Pharmaceutical Compacts Using the Mechanical Properties of Their Constituent Crystals. *Powder Technolo*gy, 60 (1990) 261-272.
- 10. W.C. Duncan-Hewitt. Oriented Dipoles at Interfaces: Calculation of Surface Potential and Surface Tension. *Langmuir*, 7 (1991) 1229-1234.
- 11. M. Thompson, A.L. Kipling, L.V. Rajakovic, B.A. Cavic-Vlasak and W.C. Duncan-Hewitt. Thickness-Shear-Mode Acoustic Wave Sensors in the Liquid Phase. *The Analyst*, 116 (1991) 881-890.
- 12. W.C. Duncan-Hewitt and M. Thompson. A Four-Layer Theory for the Acoustic Shear Wave Sensor in Contact with Polar Liquids Incorporating Interfacial Slip and Wall-Adjacent Liquid Structure. *Analytical Chemistry*, 64 (1992) 94-105.
- 13. E. Papadimitropoulos and W.C. Duncan-Hewitt. Predicting the Post-Consolidation Relaxation Behaviour of Sodium Chloride Tablets. J. Pharm.Sci., 81 (1992) 701-704.
- 14. W.C. Duncan-Hewitt. Formulation Problem-Solving as an Alternative to Traditional Pharmaceutics. *American Journal of Pharmaceutical Education*, 56 (1992) 242-251.
- 15. W.C. Duncan-Hewitt and R. Nisman. Sedimentation Testing to Predict the Adhesion of Acetaminophen and Adipic Acid to Glass. *J. Adhesion Science and Technology*, 7 (1993) 263-283.
- 16. W.C. Duncan-Hewitt. Uniaxial Compaction Modelled Using the Properties of Single Particles. *Drug Development and Industrial Pharmacy*, 19 (1993) 2197-2240.
- 17. M. Yang, M. Thompson and W.C. Duncan-Hewitt. Interfacial Properties and the Response of the Thickness-Shear-Mode Acoustic Wave Sensor in Liquids. *Langmuir*, 9 (1993) 802-811.
- 18. M.C. Lin and W. Duncan-Hewitt. Deformation Kinetics of Acetaminophen Crystals. *Int. J. Pharm.*, 106 (1994) 87-200.

- 19. W.C. Duncan-Hewitt, D.L. Mount and A. Wu. Hardness Anisotropy in Acetaminophen Crystals. *Pharm. Research*, 11 (1994) 616-623.
- 20. W. Duncan-Hewitt and E. Papadimitropoulos. Deformation Kinetics of Potassium Bromide to Predict Tablet Stress Relaxation, J. Pharm. Sci., 83 (1994) 91-95.
- 21. S.K. Lum and W.C. Duncan-Hewitt. Deformation Kinetics Analysis of Polymeric PMMA/coMAA Matrices. *Pharm. Research.*, 13(1996) 692-700.
- 22. Duncan-Hewitt. Designing Admissions Criteria: A Framework. Am. J. Pharm. Ed. 60 (1996) 109-121.
- 23. Lum and W.C. Duncan-Hewitt. A Comparison of Elastic Moduli Derived from Theory Microindentation and Ultrasonic Testing. *Pharm Research*. 13(1996) 1737-1745.
- 24. D.L. Woods, W.C. Duncan-Hewitt, F.A. Hall, C. Eyles and A.N. Hrymak. Tutored versus Tutorless Groups in PBL. *Amer.J. Pharm. Ed.* 60 (1996) 231-238.
- 25. W.C. Duncan-Hewitt. A Focus on Process Improves Problem-Based Learning in Large Classes. *Amer. J. Pharm. Ed.* 60 (1996) 109-121.
- 26. W.C. Duncan-Hewitt and J. Rains. Compounded Suppositories and Pharmaceutical Care. Int. J. Compounding 1(1997) 93-99.
- 27. S.K. Lum and W.C. Duncan-Hewitt. Powder Densification I: Particle-particle basis for incorporation of viscoelastic material properties. J. Pharm. Sci1999; 88(2) 261-276.
- S.K. Lum, S.W. Hoag, and W.C. Duncan-Hewitt, "Powder Densification. 2. Viscoelastic material properties in modeling the uniaxial compaction of powders", J. Pharm. Sci., 87(8) 1998 pp. 909-916.
- Berger, BA, Butler S, Duncan-Hewitt W, Felkey, BG, Jungnickel, PW, Krueger, J, Perry, C, Taylor, C. Changing the culture: an institution-wide approach to instilling professional values. American Journal of Pharmaceutical Education,68 (2004) Article 22.
- 30. W. Duncan-Hewitt "The Development of a Professional" American Journal of Pharmaceutical Education 2005; 69 (1) Article 6.
- 31. W. Duncan-Hewitt. "The Affective Domain," in Process Education Faculty Guidebook, 1<sup>st</sup> Edn., Pacific Crest, Lisle, IL, 2004, accepted for Process Education Faculty Guidebook, 2<sup>nd</sup> Edn., Pacific Crest, Lisle, IL, 2005.
- 32. W. Duncan-Hewitt and Z. Austin "Pharmacy Schools As Expert Communities Of Practice? A proposal to radically restructure pharmacy education to optimize learning" *American Journal of Pharmaceutical Education 2005; 69 (3) Article 54.*
- 33. Z. Austin and W. Duncan-Hewitt "Faculty, Student and Practitioner Development within a Community of Practice: Strategies for adapting administrative structures and curricula in pharmacy" American Journal of Pharmaceutical Education 2005; 69 (3) Article 55.
- 34. W Duncan-Hewitt, P. Jungnickel, R.L. Evans. "Development of an Office of Teaching, Learning and Assessment," American Journal of Pharmaceutical Education 2007; 71 (2) Article 35.

- 35. Somma, MA, Meyer SM, Duncan-Hewitt WC, Hall DL, Goode K, Smith "Defining the Differences: Medication Therapy Management, Patient Counseling, Disease Management, and Pharmaceutical Care"*J Amer. Pharm. Assoc.* 2007; 47 (5) 620-628.
- 36. Thomas SG, Hester EK, Duncan-Hewitt W, Villaume WA. A High-Stakes Assessment Approach to Applied Pharmacokinetics Instruction. American Journal of Pharmaceutical Education 2009; 72 (6) Article 146.
- 37. Buring SM, Bhushan A, Broeseker A, Conway S, Duncan-Hewitt W, Hansen L, Westberg S, Interprofessional Education: Definitions, Student Competencies, And Guidelines For Implementation. *American Journal of Pharmaceutical Education 2009. Article* 59.
- 38. Maize DF, Fuller SH, Hritcko PM, Matsumoto RR, Solt is DA, Taheri RR, Duncan W. Remediation: Best Practices in Pharmacy and Health Care Education. *American Journal of Pharmaceutical Education 201; 74 (2) Article 25.*
- 39. W. Duncan-Hewitt, D. Mount, S. Beyerlein, D. Cordon, and J. Steciak. Using a Developmental Model to Facilitate Team-Based Design Experiences in a Pre-College Engineering Science Camp, *International Journal of Process Education* 1(1) 2009 3-10.
- 40. Grice GR, Gattas NM, Sailors J, Murphy JA, Tiemeier A, Hurd P, Prosser T, Berry T, Duncan W. Health Literacy: Use of the Four Habits Model to Improve Student Pharmacists' Communication. *Patient Education and Counseling* 90 (2013) 23–28.
- 41. Gloria R. Grice, Kacie Monson, Jamie Pitlick, Rasma Chereson, Wendy Duncan, Gemma Geslani, Kimberly Kilgore, Puja Patel, Heather Pautler. Developing a Professionalism Plan, Innovations in Pharmacy 2013; 4(1) article 4.
- 42. Vouri S, Grice G, Roberts A, Berry T, Duncan W. Didactic and Experiential Interprofessional, Inter-Institutional Courses at a Private College of Pharmacy. *Currents in PharmacyTeaching and Learning, Volume 5, Issue 6 , Pages 626-631, November 2013.*
- 43. Grice GR, Tiemeier A, Hurd P, Berry TM, Voorhees M, R. Prosser TR, Sailors J, Gattas NM, Duncan W. Student use of health literacy tools to improve patient understanding and medication adherence. American Consult Pharm. 2014 Apr;29(4):240-53.
- 44. Gleason BL, Gaebelein CJ, Grice GR, Crannage AJ, Weck MA, Hurd P, Walter B, Duncan W. Assessment of Students' Critical Thinking and Problem Solving Abilities across a 6-Year Doctor of Pharmacy Program: A Pilot Test, Am J Pharm Educ. 2013 Oct 14;77(8):166
- 45. Duncan W, Gleason B. Knowledge, Abilities, Responsibilities: The Design of a 3D Pharmacy Curriculum Framework to International Journal of Process Education 2015 7(1) 53-62.
- 46. Duncan W, Bottenberg M, Chase M, Chesnut R, Clarke C, Schott K, Torry R, Welty T. Toward Cost Containment of Pharmacy Education: An Industrial Engineering Approach American Journal of Pharmaceutical Education 2015; 79 (9) Article 131.
- 47. Mangione RA, Duncan WC, Johnson MS, Law AV, Nobles Knight D, Worrall C, Lang WG. Access, Affordability and Accountability: Academic Pharmacy's Approaches and Challenges in Addressing Issues of Higher Education Policy. Report of the AACP Advocacy Committee. (2015 Oct 25) American journal of Pharmaceutical Education, 79(8):S14
- 48. Apple D, Duncan W, Ellis W. Key Learner Characteristics that Produce Academic Success, International Journal of Process Education, 2016; 8 (2) 61.

49. Evans RL, Duncan W, Jungnickel PW. Incorporating ACPE Standards in a Holistic Approach to School Operations and Accreditation. *Am J Pharm Educ.* 

#### Peer Reviewed Books

- 1. W.C. Duncan-Hewitt, D.L. Mount and D.K. Apple. <u>Cooperative Learning A Handbook</u>, Pacific Crest Software, 1995
- W.C. Duncan-Hewitt and D.K. Apple. <u>A Primer of Process Education</u>, Pacific Crest Software, 1995.

#### **Peer Reviewed Book Chapters**

- W.C. Duncan-Hewitt. <u>Nature of the Hydrophobic Effect</u>. Physical Forces in Microbial Cell Surface Hydrophobicity. (R.J. Doyle, M. Rosenberg, Ed.) American Society for Microbiology, 1990, pp. 39-74
- 2. W.C. Duncan-Hewitt and S.K. Nisman. Investigation of the Surface Free Energy of Pharmaceutical Materials from Contact Angle, Sedimentation and Adhesion Measurements in Contact Angle, Wettability, and Adhesion. (K.L. Mittal, Ed.), VSP, The Netherlands, 1993.
- 3. W.C. Duncan-Hewitt. Modeling the Compression Behaviour of Particle Assemblies from the Mechanical Properties of Individual Particles in, <u>Pharmaceutical Powder Compaction</u> <u>Technology</u>. C. Nyström and G. Alderborn (Eds.). Dekker, New York, 1995.
- 4. W. Duncan-Hewitt. "A Framework For Implementing Process Education," Process Education Faculty Guidebook, 1<sup>st</sup> Edn., Pacific Crest, Lisle, IL, 2004.
- W. Duncan-Hewitt. "Role of PE in Fulfilling the Changing Mission of Higher Education in the 21<sup>st</sup> Century," Process Education Faculty Guidebook, 2<sup>nd</sup> Edn., Pacific Crest, Lisle, IL, 2005.
- 6. W. Duncan-Hewitt and S. Butler. "Problem-Based Learning," Process Education Faculty Guidebook, 2<sup>nd</sup> Edn., Pacific Crest, Lisle, IL, 2005.
- 7. W. Duncan-Hewitt. "A Framework For Implementing Process Education," Process Education Faculty Guidebook, 2<sup>nd</sup> Edn., Pacific Crest, Lisle, IL, 2005.

#### Abstracts and Conference Proceedings Published - Peer Reviewed

- <u>D.J.W. Grant</u>, M. Mehdizadeh, K.Y. Chow, J. Go and W.C. Duncan-Hewitt, 1984. Influence of incorporated oleic acid on the properties of adipic acid crystals. *Clinical and Investigative Medicine*, 7, (3), A9
- 2. <u>W. Duncan-Hewitt</u> and D.J.W. Grant, 1985. True density distribution and thermal expansivity of pharmaceutical solids. *Proceedings of the F.I.P. Conference, Montreal, September 2-6*, 1985, abstract no. 12, p 23.
- 3. <u>W. Duncan-Hewitt</u> and D.J.W. Grant, 1985. Tablet evaluation using an impact fracture wear test. *Pharm.Research* 3 (1985) 33S.
- 4. W.C. Duncan-Hewitt and <u>D.J.W. Grant</u>, 1987. Elucidation of the mechanical behaviour of labetalol HC1 tablets using the indices of tabletting performance and the impact fracture

wear test. Proceedings of the 6<sup>th</sup> Pharmaceutical Technology Conference, Canterbury, England, April 7-9, 1987.

- 5. <u>W.C. Duncan-Hewitt</u> and D.J.W. Grant, 1987. Some instrumental variables which influence the measured hardness of compacts. *Pharm. Research* 4 (1987) 22S.
- 6. <u>W.C. Duncan-Hewitt</u> and D.J.W. Grant, 1987. Use of Hiestand's indices of tabletting performance and the impact fracture wear test. *Pharm. Research* 4 (1987) 22S.
- 7. <u>W.C. Duncan-Hewitt</u> and D.J.W. Grant, 1987. Application of an impact fracture wear test: evaluation of the wear behaviour of drugs and excipients. *Pharm. Research* 4 (1987) 31S.
- 8. <u>W.C. Duncan-Hewitt</u> and D.J.W. Grant, 1987. Evaluation of the wear behaviour of tablets using the impact fracture wear test. *Proc.* 19<sup>th</sup> Annual Graduate Students Research Meeting, Ann Arbor, Michigan, June 24-26, p.14.
- <u>W.C. Duncan-Hewitt</u> and F. Skinner, Z. Policova, P. Cheng, and A.W. Neumann, 1988. Semiautomatic Measurement of Contact Angles on Cell Layers by a Modified Axisymmetric Drop Shape Analysis. 5<sup>th</sup> Chemical Congress of the North American Continent, Toronto, Ontario, June 2-7.
- 10. <u>W.C. Duncan-Hewitt</u> and G.C. Weatherly, 1988. Predicting the Compaction of Brittle Materials Using Microindentation Techniques. *Pharm. Research* 5 (1988) S231.
- 11. <u>W.C. Duncan-Hewitt</u> and G.C. Weatherly, 1988. Knoop Hardness Anisotropy of Sucrose Crystals. *Pharm. Research* 5 (991988) S244.
- 12. <u>W.C. Duncan-Hewitt</u> and G.C. Weatherly, 1988. Predicting the Relative Wear of Different Pharmaceutical Materials Using the Mechanical properties of Single Crystals. *Pharm. Research* 5 (1988) S231.
- <u>W. Duncan-Hewitt</u>, F. DeFilippis, P. Cheng, C. Budziak, and A.W. Neumann, 1988. Liquid/Fluid Interfacial Tensions and Contact Angles by Axisymmetric Drop Shape Analysis. 7<sup>th</sup> International Conference for Surfactants in Solutions, Ottawa, Canada, 1988.
- P. Cheng, D. Li, E. Moy, C. Budziak, W.C. Duncan-Hewitt, and <u>A.W. Neumann</u>. Contact Angles Recent Developments in Experimental Technique and Interpretation, *Hungary*, October 1988.
- 15. <u>W. Duncan-Hewitt</u>, Z. Policova, W. Zingg, and A.W. Neumann. Interfacial Energetics of Proteins, 63<sup>rd</sup> Colloid and Surface Science Symposium, Seattle, WA, June 18-21, 1989.
- <u>A.W. Neumann</u>, P. Cheng, F. DeFilippis, D. Li, Z. Policova, and W.C. Duncan-Hewitt. Interfacial Tensions and Contact Angles by Axisymmetric Drop Shape Analysis, 63<sup>rd</sup> Colloid and Surface Science Symposium, Seattle, WA, June 18-21, 1989.
- 17. <u>E. Papadimitropoulos</u> and W.C. Duncan-Hewitt. Post Consolidation Behavior of Sodium Chloride and Potassium Bromide. *Pharm. Research*, 6 (1989) s-47.
- 18. <u>W.C. Duncan-Hewitt</u>. Relative Surface-Free Energy of some Pharmaceutical Crystals Determined by Indentation Fracture, Contact Angles, Sedimentation and Rate of Water Penetration Methods. ACS Annual Meeting, Boston, April 1990.
- 19. M. Thompson, PG. Kalman, AD Romaschin, N. McKeown, R.K.K. Kallury and
- 20. <u>W. Duncan-Hewitt.</u> Biocompatibility of Covalently-Bound Lipid Monolayers. ACS Annual Meeting, Boston, April 1990.

- <u>W.C. Duncan-Hewitt</u> and D.N. Kaflieva. Interpreting Protein Adsorption Behaviour by Independent, Concurrent Experimental Approaches. ACS Annual Meeting, Boston, April 1990.
- 22. <u>W.C. Duncan-Hewitt</u>. Predicting the Surface Tension of Dipolar Liquids. *Pharm. Res.* 7 (1990) 1345.
- 23. <u>W.C. Duncan-Hewitt</u>. Protein Structure, Mobility and Function and Protein-Surface Interactions. Anabiotec, 1990, San Francisco, California.
- 24. <u>W.C. Duncan-Hewitt</u>. A Problem-Based Pharmaceutics Course. AFPC Annual Meeting, 1991, St. John's, NFLD.
- 25. <u>W.C. Duncan-Hewitt</u>. A Theory for the Acoustic Shear Wave Sensor in Contact with Polar Liquids. AFPC Annual Meeting, 1991, St. John's, NFLD.
- <u>W.C. Duncan-Hewitt</u> and M. Thompson. A Theory for the Thickness Shear Mode Acoustic Wave Sensor in Contact with Water. AAPS Annual Meeting, Washington, D.C., November 1991, *Pharm. Res.* 8 (1991) S87.
- 27. <u>J. Young</u> and W.C. Duncan-Hewitt. Elucidation of the Binding Behaviour of Albumin Using the Langmuir Apparatus. AAPS Annual Meeting, Washington, D.C., November 1991, *Pharm. Res.* 8 (1991) S99.
- 28. <u>W.C. Duncan-Hewitt</u> and M. Lee. A Study of Protein/Interface Interaction Using the Method of Calorimetry, *American Chemical Society*, San Francisco, April 1992.
- <u>W.C. Duncan-Hewitt</u> and R. Nisman. Sedimentation Testing to Predict the Adhesion of Acetaminophen and Adipic Acid to Glass, *American Chemical Society*, San Francisco, April 1992.
- 30. <u>W.C. Duncan-Hewitt</u> and M. Lee. Calorimetry of Protein Interface Interaction, AAPS Meeting, San Antonio, Texas, 1992, *Pharm. Res.* 9 (1992) 122S.
- 31. <u>M.C. Lin</u> and W.C. Duncan-Hewitt. Post-Consolidation Behaviour of Acetaminophen Crystals, AAPS Annual Meeting, San Antonio, Texas, 1992, *Pharm. Res.* 9 (1992) 118S.
- 32. <u>W.C. Duncan-Hewitt</u>. Strategic Planning for Improved Student Learning, 12<sup>th</sup> Annual Conference on Teaching and Learning in Higher Education, June 1992, Toronto.
- M. Thompson, M. Damha, H.B. Su, M. Yang, K.M.R. Kallury, A.L. Kipling, L. Tessier and W.C. Duncan-Hewitt. DNA Hybridization Detected by Acoustic Energy Transmission - A New Biosensor Mechanism. J. Molec. Recognition, (1992) 33.
- 34. <u>D. Burman</u> and W.C. Duncan-Hewitt. Innovations in Large Group Teaching: Matching the Methods to the Problem. A.A.C.P. Annual General Meeting, July, Washington, D.C.
- 35. <u>S. Lum</u> and W. Duncan-Hewitt. Contact Deformation Between Two Viscoelastic Bodies. AAPS Annual Meeting, San Antonio, Texas, 1992, *Pharm. Res.* 9 (1992) 118S.
- 36. <u>W. Duncan-Hewitt</u>. A Workshop: Introduction to Second Year. A.A.C.P. Annual General Meeting, July 1993, San Diego.
- 37. <u>W. Duncan-Hewitt</u>. A Pharmaceutics Course Taught Using Self-Directed Task-Oriented Groups. A.A.C.P. Annual General Meeting, July 1993, San Diego.

- <u>Maureen A. McLaughlin</u> and Wendy C. Duncan-Hewitt. Elasticity of Acetaminophen Crystals Investigated Using an Ultrasonic Method. Submitted to AAPS Annual Meeting, Orlando, FL, November 1993.
- 39. <u>Wendy C. Duncan-Hewitt</u> and David L. Mount. Plastic Flow Anisotropy of Acetaminophen Crystals. AAPS Annual Meeting, Orlando, FL, November 1993.
- 40. <u>Susan K. Lum</u> and Wendy C. Duncan-Hewitt. Hertzian Contact Analysis of Particle Contact Deformation. AAPS Annual Meeting, Orlando, FL, 1993.
- 41. <u>W.C. Duncan-Hewitt</u>. A Priori Prediction of Compact Behaviour by Microcharacterization of the Mechanical Properties of Single Particles. AAPS Solids Symposium, San Diego, November 1994.
- 42. St-Onge, M.G.L., <u>Mount, D.L.</u> and Duncan-Hewitt, W.C. Fracture Strength of Pharmaceutical Materials Using the Chevron-Notch Three-Point Bend Test. AAPS, San Diego, 1994.
- 43. <u>W.Guo</u> and W.C. Duncan-Hewitt. Influence of Relative Humidity on the Stress Relaxation of Sucrose Tablets. AAPS, San Diego, 1994.
- 44. <u>Erik de Graaff</u> and Wendy Duncan-Hewitt, The Influence of Assessment on Students' Behavior. Problem-Solving Across the Curriculum Conference, June 26-29, Genoa, New York, 1994.
- 45. <u>R. Stull</u>, W. Duncan-Hewitt, C. Bond, H. Laird, and C. Raehl, An Educational Blueprint for the Texas Tech University Health Science Center School of Pharmacy.
- <u>W. Duncan-Hewitt and David Mount.</u> "Dialogues of Scholarship", workshop STLHE Conference, Ottawa, Canada, June, 1996.
- <u>S. Lum</u> and Wendy Duncan-Hewitt) "Modelling the compaction of pharmaceutical powders using the viscoelastic properties of single particles", Pharmaceutical Research, 12(9) 1995 p. S169.
- 48. <u>S.K. Lum and W.C. Duncan-Hewitt</u>, "Ultrasonic testing of solids and the relationship to molecular structure", Pharmaceutical Research, 13(9) 1996 p. S201.
- <u>W. Duncan-Hewitt and David Mount.</u>"Designing Instruction to Optimize Cognitive Growth", 5<sup>th</sup> Annual Lilly Conference on College & University Teaching South, Athens Georgia, March 12-14, 1999.
- 50. W. Duncan-Hewitt, D. Mount, <u>S. Beyerlein</u>, D. Elger, and J.Steciak, "Using Developmental Principles to Design Mentoring Experiences for Graduate Students," Proceedings of the 31<sup>st</sup> ASEE/IEEE Frontiers in Education Conference, 2001, S3B-4.
- 51. W. Duncan-Hewitt, D. Mount, S. Beyerlein, <u>D. Elger</u>, and J.Steciak, "Using Developmental Principles to Plan Design Experiences for Entering Engineering Students," Proceedings of the 31<sup>st</sup> ASEE/IEEE Frontiers in Education Conference, 2001, T3E-17.
- 52. Wendy Duncan Hewitt, Paul Jungnickel, Steve Butler, Lee Evans, Development of an Office of Teaching, Learning and Assessment: An Administrative Resource to Facilitate Change in Pharmacy Education, Special Session, AACP national meeting, Salt Lake City, Utah, 2004
- 53. Wendy Duncan-Hewitt, CQI of Process Education Scholarship identifying and overcoming barriers to growth, Association of Research-Based Practitioners in Process Education, Elmhurst, IL, June 28-29.

- 54. Wendy Duncan-Hewitt, Activity Design and Cognitive Complexity, Association of Research-Based Practitioners in Process Education, Elmhurst, IL, June 28-29.
- 55. Kara Townsend, Janelle Krueger, Wendy Duncan-Hewitt, Kem Krueger, Jalynn Abrams, Kate Copelan, Kristopher Frederick, Andrea Gumert, Stephanie Lindsey, Brooke Maloy, Quentin Minson, Angela Pence, Jeremy Roop, Niaz Siddiqui, Kelli Sims, Lauren Streett, Julie Willmon, Auburn University, Concept Mapping Aids Learning of the Pharmaceutical Care Process, AACP Annual Meeting, Salt Lake City, UT, July 11-15, 2004.
- 56. Bruce A. Berger, Wendy C. Duncan-Hewitt, R. Lee Evans, Paul W. Jungnickel, Robert E. Smith Developing Our Professional Culture at Auburn University Harrison School of Pharmacy, AACP Annual Meeting, Salt Lake City, UT, July 11-15, 2004.
- 57. Paul Jungnickel, Wendy Duncan-Hewitt, Steve Butler, R. Lee Evans, Development of an Office of Teaching, Learning and Assessment. Special session, AACP Annual Meeting, Salt Lake City, UT, July 11-15, 2004.
- 58. W. Duncan-Hewitt representing Auburn University Harrison School of Pharmacy, Collaborating for Quality: Auburn University Harrison School of Pharmacy's Assessment System, AACP Annual Meeting School Poster, San Diego, CA, 2006.
- 59. Charles Taylor, Tricia Berry, Wendy Duncan-Hewitt. Fostering junior faculty success through a faculty academy program. AACP Annual Meeting, Orlando, FL 2007.
- Abby Kahaleh, Chris Turner, Pete Vlasses. Wendy Duncan-Hewitt. Continuous Quality Improvement of Experiential Programs. AACP Annual Meeting, Orlando, FL 2007.
- Cryder, Brian, Komperda, Kathy; Andurkar, Shridhar; Susan P. Bruce; Gulati, Anil; Duncan, Wendy; Winkler, Sue; Zavod, Robin. Developing a Culture of Scholarship. AACP Annual Meeting 2009, Boston MA.
- 62. Stamm, P, Rose, R, Duncan-Hewitt W, Taylor C, Byrd D, Helms K. Spanning the spectrum of active learning: from short and simple to comprehensive and complex. AACP Annual Meeting 2009, Boston MA.
- 63. Duncan W, Fielding D, Austin Z, Brazeau G, Blouin B, Stow C, Medina M. Speaking The Same Tongue: coming to consensus on the language of assessment and evaluation. Special Session at AACP Annual Meeting, 2010, Seattle WA.
- 64. Duncan W, Fielding D, Austin Z, Brazeau G, Blouin B, Stow C, Medina M. Speaking Charting the Course: planning efficient and effective approaches to assessment and evaluation. Special Session at AACP Annual Meeting, 2010, Seattle WA.
- 65. Murphy JA, Tiemeier AM, Berry TM, Grice GR, Hurd PD, Gattas N, Prosser T, Rattine-Flaherty E, Reeds R, Sailors JS and Duncan W. "Health Literacy: Use of the Four Habits Model to Improve Communication." American Association of Colleges of Pharmacy Annual Meeting, Seattle, WA, July 11-12, 2010
- 66. Peter D. Hurd, Tricia M. Berry, Amy Tiemeier, Rebecca Reeds, Theresa Prosser, Gloria Grice, Nicole Gattas, Julie Murphy, Elizabeth Rattine-Flaherty, Wendy Duncan. Health Literacy: Assessment of the Skills and Attitudes of Student Pharmacists using a Web-based Questionnaire, AACP Annual Meeting, 2010, Seattle WA.
- 67. Hurd PD, Berry TM, Tiemeier A, Reeds R, Gattas N, Grice G, Murphy J, Prosser T, Rattine-Flaherty E, Sailors JS, Duncan W. Health Literacy: Curricular Changes to Improve Students'

Ability to Impact Patient Health. Presented at the American Association of Colleges of Pharmacy Annual Meeting, Seattle, Washington, July 11/12, 2010.

- 68. Hurd PD, Berry TM, Tiemeier A, Reeds R, Gattas N, Grice G, Murphy J, Prosser T, Rattine-Flaherty E, Sailors JS, Duncan W. Health Literacy: Curricular Changes to Improve Students' Ability to Impact Patient Health. Health Literacy Annual Research Conference. Bethesda, Maryland, October 2010
- 69. Wendy Duncan, Peter Hurd, Tricia Berry, Amy Tiemeier, Chaya Gopalan, Terry Seaton, Zachary Stacy, Sheldon Holstad, Strengthening the Research Culture at St. Louis College of Pharmacy, School Poster, AACP Annual Meeting, 2010, Seattle WA.
- 70. Wendy Duncan, Brenda Gleason, Gloria Grice, Abby Yancey, Tricia Berry. Backward Design—Assessing a Curriculum. Special Session, AACP Annual Meeting, 2011, San Antonio, TX.
- 71. Hurd PD, Tiemeier AM, Berry TM, Grice G, Prosser TR, Gattas N, Murphy J, Reeds R, Sailors JS, Duncan W. Health Literacy Education: Changes In Pharmacy Student Abilities Over Two Years, AACP Annual Meeting, 2011, San Antonio, TX.
- 72. Gleason BL, Berry TM, Crannage AJ, Gardenour BS, Gopalan C, Grice G, Marjanovic J, Duncan WC. Use of a Backward Design Process to Develop an Integrated, Outcomes-Based Patient Care Course Series. School Poster, AACP Annual Meeting, 2011, San Antonio, TX.
- 73. Gloria R. Grice, Amy M. Tiemeier, Tricia M. Berry, Theresa R. Prosser, Jill Sailors, Nicole Gattas, Peter D. Hurd, Julie A. Murphy, Rebecca Reeds, and Wendy Duncan. Successful Integration Of Health Literacy Into An Introductory Pharmacy Practice Experience Course. AACP Annual Meeting, 2011, San Antonio, TX.
- 74. Hurd P, Berry T, Duncan W, Gattas N, Grice G, Kebodeaux C, Murphy J, Prosser T, Sailors J, Tiemeier A, Voorhees M. Health Literacy Education: Demographic Factors Affecting Student Pharmacist Self-Assessment of Health Literacy Skills., has been accepted for the AACP Annual Meeting, 2012 in Kissimmee, FL
- 75. Grice G, Pearce EF, Monson K, Roberts A, Berry TM, Tiemeier AM, Vouri SM, Kebodeaux C, Burke JM, Duncan WC. Didactic and Experiential Interprofessional, Inter-Institutional Courses at a Private College of Pharmacy. AACP Annual Meeting, 2012 Kissimmee, FL
- 76. Marlowe K, Duncan W. Curricular Mapping is an ACTION VERB!, Special Session for the 2013 AACP Annual Meeting in Chicago, Illinois.
- 77. Snella K, Duncan W, Brownfield A, Aistrope D, Berry T. Missouri. In Successful Practices in Pharmaceutical Education: College/School of Pharmacy Collaborations with State Pharmacy Association(s) and State Board of Pharmacy. Alexandria, VA:AACP, 2013;33-5. (Available at

<u>http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEduc</u> <u>ation.aspx</u>)

- 78. Duncan WC, Apple Dan. Creating "Creating Extreme Learners" Through a Learning---to---Learn Course, Drake University Learning Symposium, August 15 2014.
- 79. Apple D, Duncan W. Profile of a Quality Collegiate Learner. Process Education Conference, 2015.

- 80. Chesnut R, Phillips C, Duncan W. Standards 2016: Intentional Student Professional and Leadership Development in the Co-Curriculum. National Harbor, MD: AACP, 2015.
- 81. Wendy Duncan, PhD, Deborah Ikeda, PhD, Lynnette Zelezny, PhD. Contextualized Preprofessional Health Pathway. WASC-ARC 2016. San Francisco, CA.
- 82. Wendy Duncan, PhD, Midori Kondo, PharmD, and Richele Kleiser. Prospero Prepharmacy Pathway in California's Central Valley. 2016 AACP Annual Meeting, Anaheim CA.
- 83. Wendy Duncan, PhD. The Philosophy of Process Education Reprise. Process Education Conference 2016, Grand Valley State University, MI.
- 84. Will Ofstad, Wendy Duncan. Augmenting Team-Based Learning with Process Education. Process Education Conference 2016, Grand Valley State University, MI.
- 85. Wendy Duncan, PhD. Moral Agency, Panelist for Institutional Equity Programs, Process Education Conference, Academy of Process Educators, Clovis CA, June 23, 2017.
- Wendy Duncan, PhD. Workshop: Profile of a Quality Collegiate Learner as a General Education Outcome, Process Education Conference, Academy of Process Educators, Clovis CA, June 24, 2017.
- 87. Foley C, Munjy L, Marty-Pearson J, Harris C, Hussain D, Shennoy V, Clegg R, Nielsen N, Duncan W, Havard P. As Integrative Approach to Students' Self-Awareness using Global Learning Outcomes (GLOs). Poster for AACP Annual Meeting, Nashville TN, 2017.
- 88. Duncan W, Azab A, Salazar M, Ofstad O, Sanchez R, Hughes J, Fuentes D. Better than Family: growing a healthy academic culture by coordinating relationships, processes and structures. WASC ARC, Garden Grove CA, April 10-12, 2019.
- 89. Hughes, J, Duncan, W, Fuentes, D, Salazar M. Implementing a "Huddle Culture" to Promote Organizational Health and an Informed, Cohesive, Academic Work Environment, AACP Annual Meeting, Chicago, IL, July 13-17, 2019.
- 90. Muellenbach J, Duncan W, Ennis, L, Yang A. Service and Staffing Practices within Academic Libraries Serving College of Osteopathic Medicine Programs: A Mixed Methods Study. Medical Library Association 19, Chicago IL May 3-8, 2019.

#### Self-Published Books

- W.C. Duncan-Hewitt and D.L. Mount. <u>Pharmaceutics Case Book</u>. Grian Facilitations, Toronto, Canada, 1995.
- 2. W.C. Duncan-Hewitt and D.L. Mount. Awakening Choice, Nurturing Enthusiasm, Facilitating Responsible Action Crux Consulting. 1999.
- 3. W. Duncan-Hewitt. Empowered To Be Responsible, Crux Consulting, 2002.

#### **Technical Reports**

- Prediction of Capping of Labetolol-HCl using Indices of Tablet Compaction, for Schering, 1987
- 2. Wetting of Fibre Potts, 1989, for Kord Products.
- 3. Batch to Batch Failure of Beclomethasome, 1991, for Schering.

### Contracts

Kord Products, to solve wetting problems - co-investigator with A.W. Neumann, 1989.

### Grants

Connaught Grant for Junior Investigators, 1989, \$10,000.00 - PI.

Johnson and Johnson International Academic Research Grant, 1989, \$20,000.00- PI.

Medical Research Council Operating Grant "Predicting Tablet Strength from the Properties of Tablet Constituents" 1990-1992, \$78,760.00 - PI.

Natural Sciences and Engineering Research Council Operating Grant "Deformation Kinetics of Pharmaceutical Crystals" 1990-1992, \$25,000 p.a. - PI.

Natural Sciences and Engineering Research Council Eqp. Grant "Non-Contact Laser Stimulated Laser Detecting Ultrasonic Pulse Apparatus" 1990, \$48,000 - PI.

Schering: Evaluation of the Sedimentation Behaviour of Drugs, 1991-1992 \$23,000 – Pl.

Medical Research Council of Canada: M. Thompson, A Romaschin, K. Kallury, P. Kalman "Covalently Bound Lipid Species On Vascular Prostheses", 1991-1993Mt-11462, \$163,450 - Co-investigator.

Medical Research Council of Canada: "Predicting Tablet Strength from Properties of Constituents" 1992-1995, \$125,679 - PI.

Natural Sciences and Engineering Research Council Op. Grant: Determination of Elastic and Viscous Deformation Parameters of Pharmaceutical Crystals by Bulk Acoustic and Contact Deformation Experiments, 1993-1994, \$15,000 - Pl.

Texas Tech Fund 2005, 1995, \$2,005.00 - primary investigator.(with Richard Stull)

Texas Tech Fund 2005, 1996 \$2,005.00 - co-investigator (with John Pelley)

Breeden grant for Faculty Enhancement, 2004 \$1901 co-investigator (with A. Donaldson, D. Byrd, K. Kelley)

Collaborator in "Community Engaged Scholarship for Health Collaborative" FIPSE funded project, 2005.

Berry TM, Tiemeier AM, Gattas N, Grice G, Hurd P, Murphy JA, Prosser TR, Rattine-Flaherty E, Reeds R, Varga N, Duncan W. Health Literacy: Educating Students, Pharmacists and Patients. Missouri Foundation for Health, December 2009. \$259,139.

Berry TM, Tiemeier AM, Gattas N, Grice G, Hurd P, Murphy JA, Prosser TR, Rattine-Flaherty E, Reeds R, Varga N, Duncan W. Health Literacy Curriculum Expansion: From Campus to Community. Missouri Foundation for Health, September 2011. \$199,382.

Schafermeyer KW, Mallinson K, (Pls) Duncan W, Tiemeier A, Simmons K. (cols) Proposal for a Partnership to Support Mid-level Pharmacy Professionals in South Africa by Strengthening the Pharmacy Technician Program at Nelson Mandela Metropolitan University, 2013, \$80,000

# Professional Service and Outreach

### **Reviewer/Assessor**

Biocolloids and Biosurfaces - Editorial Advisory Board	1989-1995
J. Colloid Interface Science - reviewer	1989-1994
ParaDigm Biotechnologies Corporation - Science Advisory Board	1989-1990
AAPS	
Annual Meeting - Section Screener	1990
Awards Nominations for PPD Subsection	1992
CIC, Kenneth Armstrong Memorial Scholarship - assessor	1990-1991
Powder Technology – reviewer	1991-1996
International Journal of Pharmaceutics - reviewer	1991-1996
Colloids and Surfaces – reviewer	1992
Sanofi-Winthrop Graduate Studentships – select ion committee	1992
Medical Research Council of Canada	
grant reviewer	1992-1996
pharmaceut ical science committee	1994-1996
J Pharm Sci – reviewer	1992-1996
J. Adhesion Sci. & Technol – reviewer	1992-1998
American J. Pharmaceutical Education - reviewer	1993-present
Int. J. Compounding - reviewer	1997
J Pharmacy Teaching – reviewer	2004
Social Science & Medicine – reviewer	2004
Pacific Crest Faculty Guidebook - Member of Project Director Team for $3^{\rm rd}$ Edition	2005
Currents in Pharmacy Teaching and Learning	2010-present

### Associations – Offices and Activities

Ontario College of Pharmacists – licensed pharmacist	1979-1993
Preceptor to a Pharmacy Apprentice (Kamini Hetram)	1993
Peel Lung Association	
Lectures to parents of asthmatic children regarding pharmacology and cor- rect use of medications used in the treatment of asthma	1981-1984
Board of Directors	1983-1984
Pharmacy Graduate Students' Association	
Member	1984-1987

Secretary	1984-1985
President	1985-1987
American Association of Pharmaceutical Scientists	1987-1995
Membership Committee - Canadian Chairman	1989
American Chemical Society	1988-1995
Organizer, Symposium of Surface Phenomena of Biopolymers and Cells, Miami Beach, FL	1989
Organizer - Symposium on Surface Phenomena of Biopolymers and Cells, Boston, MA	1990
Organizer - Symposium on Drug Delivery in Colloidal Systems, Boston, MA	
Member of Canadian Membership Committee	1991
Organizer - Symposium on Surface Phenomena in Medicine and Dentistry, San Francisco, CA	1991
Symposium Topic Chair	1992
	1991-1993
Faculty of Medicine Task Force for Curriculum Renewal Member	1990
Association of Faculties of Pharmacy in Canada	1990-1993
Councilor for University of Toronto	
Chair Committee on Membership - II	1993
Teaching Development Advisory Committee, University of Toronto	1990-1995
New York Academy of Sciences	1990-1995
Anabiotec - Symposium on Proteins at Interfaces, San Francisco, California, October 22-24 - organizer	1990
Chemical Institute of Canada	
Secretary, Toronto Division	1990-1991
Drug Quality and Therapeutics Committee, Ontario Ministry of Health	1991-1993
American Associat ion of Colleges of Pharmacy	
Member	1991-present
Chair Elect, Section of Pharmaceutics - AACP	1996
Institutional Research Advisory Committee	2004-2007
Joint Committee on the Pharmaceut ical Sciences in Pharmacy Education	2004-2005
Curriculum SIG – Chair	
Curriculum SIG – Immediate Past Chair	2004-2005
Council of Faculties Task Force on Interprofessional Education	2005-2006
Assessment Learning Community Leader	2005-2008
Social and Administrative Science Curriculum Committee	2005-2006

	2005-2006
Institutional Research Advisory Committee	2006-2007
Standing Committee on Advocacy	2009-2010; 2014-
	2015
Joint Council of Deans / Council of Faculty Task Force on Advocacy; co-chair	2010-2011
Joint Council of Deans / Council of Faculty Task Force on Professionalization	2011-2012
Joint Council of Deans / Council of Faculty Task Force on Advocacy - inter- professional education workgroup	2012-2013
Council of Deans Secretary	2015-2016
American Association for Higher Education	1993-1995; 2003
University of Toronto Faculty Club	
Board of Directors and Member of House Committee	1993-1995
Vice President, Board of Directors	1994-1995
Amarillo West Rotary Club	1995-1996
Council of Health Professionals for Nat'l Network of Libraries of Medicine	1996
National Association of Compounding Pharmacists, Board of Directors and Head of Educational Services	1996-1997
Specialized Pharmaceut ical Technologies, Board of Directors	1996-1997
A.A.U.W. Amarillo, Vice President, Membership	2002
Assoc. Research-Based Pract it ioners in Process Educat ion – Conference Chair	2004
Associate Director of the Academy for Process Educators	2007-2008
Auburn University	
Biggio Center Advisory Board	2004
Committee to Examine Commission on Status of Women	2004-2006
Academic Program Review Committee	2005-2006
American Journal of Pharmaceutical Education – Editorial Board Member	2006-2008
Missouri Pharmacy Association - Academic Affairs Committee	2007-2008
Washington University Ethics Center - Executive Committee	2007-present
Washington University Institute for Clinical and Translational Sciences – Governing Council	2007-present
Healthcare Businesswomen's Association	2008-present
Board of Directors, Co-chair Women in Science	
Advisory Board	
Mentor in HBA mentoring program	
National Association of Professional Women	2008-present
Accreditation Council for Pharmaceutical Education – site evaluator	2007-present

Health Literacy Missouri – Annual Health Literacy Summit Planning Committee	2011-2012
Midwest Health Initiative – Member, Community Leadership Board	2011
United Way of St. Louis – Women's Leadership Society, Cabinet member	2012
Iowa Pharmacy Association Foundation	2013-present
Board of Directors	
Collaborative Education Institute Board of Directors	2013-present
American Heart Association – Passion Committee	2014
United Way of Des Moines – Leadership Society	2014
National Academies of Practice – Vice-CHIAR, Pharmacy Academy	2017

# **Consulting and Facilitation**

Workshop on Problem-Based Learning, Faculty of Pharmaceutical Sciences, University of British Columbia. February	1992
Workshop on Problem-Based Learning, Department of Pharmacy, Memorial University, Newfoundland. March	1992
Research Department, Lyndhurst Hospital - Strategic Planning	1992
Glaxo Pathway Evaluation Program - Facilitator	1993-1995
OCUPRS Section of Council of Ontario Universities – Strategic Planning	1993
University of Western Ontario, Department of Physical Therapy – Strategic Planning	1993
University of Toledo, School of Pharmacy, September 23 – Orientation Workshop and PBL Workshop	1994
University of Toronto, Faculty of Pharmacy – Facilitator for Pacific Crest, Process Educa- tion	1994
The Health Station, 2398 Yonge St., Toronto, Ontario, January  - Focus Groups and Plan- ning for Barrier-Free Program	1995
Process Education Workshop for Professional Faculty, Monday, March 27. Koffler Insti- tute, University of Toronto	1995
Dialogues of Scholarship Workshop, July 17-21, Koffler Institute, University of Toronto	1995
DACUM Analysis for Teaching Associate Education Program, Faculty of Pharmacy, Uni- versity of Toronto, June 15	1995
AQHYA Leadership Conference, Amarillo, TX – facilitator	1996
TTUHCS – School of Pharmacy	1996
Introduction to PBL – January 30	
Designing Course Outcomes – March 20	
Teaching with Cases – April 23	
Assessment of Learning — May 10	
Cont inuous Quality Improvement Teams, Harrington Cancer Center, Amarillo, TX, Febru- ary 7 – Facilitator	1997

Teaching Institute Kirkwood Community College, Chicago, IL, April 9-12	1997
Teaching Institute, Sinclair Community College, Dayton, OH, July	1997
Teaching Institute, Sinclair Community College, Dayton, OH, December 10	1997
Bellevue University, Bellevue, NB, Feb 11 - consulting	1998
Kirkwood Community College, Cedar Rapids, IA, Feb 12,13 - consulting	1998
Problem-Based Learning Workshop, Ferris State, April 9	1998
Kirkwood Community College, Cedar Rapids, IA, April 14,15 – consulting	1998
Process-Focused Learning Workshop, Faculty of Pharmaceutical Sciences, University of Alberta, May 11-13	1998
Process-Focused Learning Institute, St. Mary's College, IN, May 18-20	1998
Cognitive Maturity and Problem-Based Learning Workshop, Physical Therapy Depart- ment, Belmont University, TN May 21	1998
Facilitator Training, Boise, ID, June 17,18	1998
Idaho Engineering Science Camp Facilitation, Boise ID, June 21-27	1998
Facilitator Training, Boise, ID	1999
Idaho Engineering Science Camp Facilitation, Boise ID	1999
Facilitator Training Workshop, Moscow, ID, June	2000
Idaho Engineering Science Camp Facilitations, Moscow, ID, June	2000
Cognitive Development Workshop (2), University of Idaho, Moscow, ID, November	2000
Cognit ive Development, Faculty of Pharmacy, University of Toronto, November	2000
Cognit ive Development Workshop, Kirkwood Community College, Cedar Rapids, IA, No- vember	2000
Cognitive Development Workshop, Faculty Retreat, Agriculture Dept, Kirkwood Com- munity College, Cedar Rapids, IA, March	2001
Program Assessment Workshop, SUNY Stony Brook, Jan 14, 15	2002
Faculty College, AUHSOP	2003-2005
Faculty Development Series (at least monthly) AUHSOP	2004-2006
Program Assessment Workshop, University of the District of Columbia, July 21, 22	2004
West Virginia University School of Pharmacy Faculty Retreat, January	2009
Assessment Institute, Gaston Community College, June 24-26	2009
Assessment – Consulting for Accreditation Council for Pharmaceutical Education	2009
Teaching Institute, Hinds Community College, January	2010
DACUM Workshop: developing a Curriculum; University of Wyoming School of Pharma- cy, September 23	2010
Contributing editor for: Apple D, Ellis W, and Hintze D. 25 Year of Process Education, International Journal of Process Education, February 2016, Volume 8 Issue 1.	2016

## **Invited Lectures**

School of Pharmacy, Memorial University, Newfoundland. "Evaluating the Ability of Pharmaceutical Crystals to Form Tablets by Microindentation Techniques"	October 1988
Faculty of Pharmacy, Dalhousie University, Nova Scotia. "Using Microindentation Tech- niques to Evaluate the Mechanical Properties of Pharmaceutical Crystals"	October 1988
Schering Pharmaceuticals, Miami, Florida, "Predicting Tablet Compaction, Indices of Tabletting Performance, and Other Subjects Related to Tabletting"	February 1989
Faculty of Pharmacy, University of British Columbia. "The Thermodynamic Significance of Contact Angles".	February 1989
Physical Chemical Aspects of Protein and Cell Adsorption "Interfacial Physical Chemistry and Aspects of Biocompatibility" Workshop, Toronto General Hospital	November 1989
Toronto General Hospital Grand Rounds. "Proteins at Liquid/Solid Interfaces"	February 1990
CIC Annual General Meeting Guest Speaker "Proteins at Interfaces"	November 1990
The Electrochemical Society, Inc., Symposium on "Interfacial Science and Chemical and Biosensor Development" February 22 <sup>nd</sup>	February 1991
"The Chemistry of Biocompatibility" Symposium on Chemistry and Physics in the Health Sciences, Erindale College	February 1991
The Fifth Conference, Commonwealth Pharmaceutical Association, Hamilton, Ontario, "The Storage and Stability of Medicines as Taught in the Undergraduate Pharmacy Course"	August 1991
"The Use of Microindentation in Process Evaluation", Philadelphia Pharmaceutical Fo- rum, October 10	October 1991
"Speculations on the Role of Crystal Habit in Pharmaceutical Processing", McNeil Con- sumer Products, Philadelphia	October 1991
"Problem-Based Learning", ACQUI, Erindale College	October 1991
"Modeling the Partially-Wetted Bulk Acoustic Wave Sensor" Department of Physics, Memorial University, Newfoundland	March 1992
"Uniaxial Compaction Modelled Using the Properties of Single Particles" Second Sympo- sium of the Pharmaceutical Compaction Research laboratory, Rutgers University, New Jersey	March 1992
"Measuring and Interpreting Solid Surface Free Energy", Pfizer Research, Groton, Con- necticut	May 1992
"Controlled Release Drug Delivery Systems", Centre for Biomaterials Graduate Course, University of Toronto	November 1992
"Liposomes", Ottawa Society of Hospital Pharmacists	November 1992
"Student Interaction in the Classroom", Panel Member for Teaching Initiative Event at Faculty of Arts and Science, University of Toronto	February 1993
Problem-Based Pharmaceutics Demonstration and Lecture, University of Kentucky	May 1993

"Problem-Based Learning in Large Classes", Department of Occupational Therapy, University of Toronto	June 1993
"Using Self-Directed Groups to Solve Problems in Pharmaceutics", University of South- ern California.	September 1993
AAPS Symposium on Tablet Compaction, " A <i>priori</i> prediction of tablet compaction be- haviour using microcharacterization of the properties of tablet constituents", AAPS Na- tional Meeting, San Diego	November 1994
"Problem-Based Learning" for Instructional Methods for Graduate Students University of Toronto	November 1994
Using Cases in a Cooperative PBL Environment, AACP, Teachers of Pharmaceutics SIG, Wednesday	July 1995
Thinking Skills and Dispositions - what Counts in PBL? Faculty of Pharmacy, University of Toronto	October 1996
Using Real Problems to Teach Pharmaceutics, Chairs of Pharmaceutics section, AAPS Annual Meeting. Seattle, WA	October 1996
Cognitive Maturity, Learning Skills, and Assessment Rubrics, Assessment Conference, IUPUI, Indianapolis, IN	November 1997
Cognitive Maturity and Teaching Methods, Texas Department of Corrections, Wyndham School District, Clements Unit, Amarillo, TX	October 1998
Lilly Conference, Ohio, Plenary Lecture: Cognitive Growth and Development and their Impact on Learning Style and Learning Needs	November 1999
Managing Age Diversity, Proceedings of the 31 <sup>st</sup> ASEE/IEEE Frontiers in Education Con- ference, 2001	October 2001
The Emperor's New Clothes: Professionalization and Professionalism Education, Faculty of Pharmacy, University of Toronto	November 2003
Course Integration: Assessment and Outcomes, Joint Programming Session by Biological Sciences, Chemistry and Pharmaceutics, AACP Annual Meeting, Cincinnati, OH	July 2004
with Dana Hammer and Bruce Berger. Professionalism Workshop. AACP Teachers Work- shop, AACP Annual Meeting, Cincinnati, OH	July 2005
AACP Curriculum//PEP SIG (Joint) Organizer and Speaker. Developing and Implementing Rational Outcomes Based Pharmacy Programs	July 2005
Joint Programming Session by Biological Sciences, Chemistry and Pharmaceutics, Course Integration: Assessment and Outcomes, Sunday 1-2:30, speaker for Pharmaceu- tics Section	July 2005
Communities of Practice, presentation and consultation at University of Pittsburgh	November 2006
Pharmaceutics Sections SIG: The future of pharmaceutical sciences, AACP Annual Meet- ing, San Diego, CA	July 2006
Continuous Quality Improvement of Experiential Programs: A Communities of Practice Perspective, PEPSIG Presentation, AACP Annual Meeting, Orlando, FL	July 2007
Evaluating and Rewarding the Scholarship of Teaching, ACCP Annual Meeting, Denver	October 2007

Primer to Effective Mentoring, ACCP Annual Meeting, Denver CO	October 2007
HBA St. Louis - Career Journeys of Senior Level Women Leaders in Health Care	May 2008
Panelist – Preparing for the Site Visit; ASPA, September 14th	2009
Post Visit Evaluation – program design ASPA, September 15th	2009
Challenges and Successes In Interprofessional Education: The NON-Academic Health Center Context. AACP Teacher's Seminar, Seattle, July 10.	2010
Educating Student Pharmacists to Build and Advance a Sustainable Profession, Hoy Lec- ture, University of Wyoming School of Pharmacy, September 23	2010
What is all the H"IPE" about: How do we deal with Interprofessional Education?!!; Faculty of Pharmaceutical Sciences, University of British Columbia, October 25.	2010
Collaborating to Educate Tomorrow's Leaders in Patient Centered Care, Keynote Ad- dress, 4 <sup>th</sup> Kuwait International Pharmacy Conference	Feb 4-6, 2013
New Health Delivery Models in Relation to Patient-Centeredness and Health Teams, 4 <sup>th</sup> Kuwait International Pharmacy Conference	Feb 4-6, 2013
A Discussion Forum on Pharmacy Education, 4 <sup>th</sup> Kuwait International Pharmacy Confer- ence	Feb 4-6, 2013
Breakout Session in Teacher's Seminar: Cognitive Moral Development. AACP Annual Meeting, Chicago, IL	July 2013
Designing Instruction to Foster the Development of Professionally Mature Practitioners – Rosalind Franklin University	May 2014
Opportunities in Health Sciences – Fresno Adalente Mujer	September 2018

# Graduate Students Supervised:

1990	E. Papadimitropoulos, M.Sc. Phm.	
1992	M.C. Lin, M.Sc.Phm.	
1992	J. Young, M.Sc.Phm.	
1995	M. Lee, M.Sc.Phm.	
1996	X. Guo, M.Sc.Phm.	
1998	S. Lum, Ph.D.	
2006	H. Pandya, co-supervised with B. Berger (Ph.D. candidate)	
Graduate Student Committees		

### Graduate Student Committees

1991-1992	Mengsu Yang (Ph.D. candidate, Dept. Of Chemistry, U. of T.)
1992	Paul Li (Ph.D. candidate, Dept. Of Chemistry, U. of T.)
1995	Jim Moselhy (M.Sc.Phm. candidate, Faculty of Pharmacy, U. of T.)

### **Graduate Student Examining Committees**

- 1992 Steven Brown (Ph.D., Erindale College)
- 1993 Anh Thu Pham (M.Sc.Phm.)

#### Undergraduate Research Summer Students (University of Toronto)

- 1986 Supervisor for MRC summer student: Susan Lum.
- 1988 Primary supervisor for NSERC summer students: Jeff Young and Kam Dehdasht ian.
- 1989 Primary supervisor for NSERC summer students: Francisco De Silva, Jeff Young.
- 1990 Supervisor for MRC summer student: Monica Lee.
- 1990 Supervisor for visiting summer student:
- Karen McKnight, Belfast, Ireland.
- 1991 Supervisor for MRC summer student: Cedric Lam.
- 1992 Supervisor for NSERC summer student: Alfred Yu.
- 1992 Supervisor for summer research student: Shirley Chen.
- 1993 Supervisor for PMAC summer student: Paul Au.
- 1993 Supervisor for summer research student: Nina Nguyen.
- 1994 Supervisor for summer research students: Karen Clarke, Belling Leung, Azim Jagani.
- 1995 Supervisor for MRC summer student: Marisa Lam.
- 1995 Supervisor for summer research students: Ernest Ho, Adam Khan.

### Teaching

California Health Sciences University	Personal Finance for the Healthcare Professional	2016
	Special Project in Leadership	2016
St Louis College of Pharmacy	Pharmaceutics	2007- 2008
	State Politics	2008- 2011 (fall)
Auburn University Harrison School of Pharmacy	Pharmacy Practice Experience PYDI 5190	2005- 2006
	Foundations of Pharmacy PYDI 5080	2003- 2005
	Pharmacy Care Systems Communication II, PYPC5720	2004- 2006

Texas Tech University Health Sci- ences Center School of Pharmacy	Introduction to Pharmacy and Science, PHAR 1300	1996- 1997
	Drug Delivery Systems I, PHAR 1321	1996- 1997
University of Toronto, Faculty of Pharmacy	Cross-appointment to teach patient counseling	1981- 1983
	Teaching Assistant in Pharmaceutics and Pharmaceu- tical Analysis	1984- 1987
	Pharmacy Student Orientat ion Symposium (2 day)	1991- 1995
	Research Project: Jacky Tsang, Alfred Yu, PHM 489Y	1993- 1994
	Research Project PHM 499Y	
	Rita Ankus	1989
	Monica Lee, Nicole Lee	1990
	Michael St Onge	1993
	Chad Wallace	1994
	Pharmaceutics and Lab PHM 230Y	1990- 1995
	Biochemistry – protein biochemistry lectures PHM 318Y	1990- 1991
	Introduction to Instructional Methods PHM 347S	1993- 1995
	Physical Chemical Aspects of Surface and Bulk Phe- nomena in Organic materials (Coordinator) PHM 1113H	1990- 1995
	Theory of Pharmaceutical Systems (Lecturer) PHM 1104H	1990- 1995
Humber College Pharmacy Assis- tant Programme	Pharmacology	1984-
	Pharmacy Calculations	1986
	Computer Laboratory	
	Hospital Dispensing Laboratory	

# Faculty Service and Responsibilities

University of Toronto	Curriculum Committee	
	Member	1989-1995
	Chair	1994-1995
	Teaching Development Committee	1990-1995
	Admissions Committee	

		Member	1992-1995
		Chair and Admissions Officer	1993-1994
		Subcommittee on Accountability and Assessment	
		Chair	
			1993-1995
Auburn University School of Pharmacy	Harrison	Director, Office of Teaching Learning and Assess- ment	2003-2006
		Professional Education Committee	
		Member	2003-2006
		Committee on Professionalization	
		Co-chair	2003-2004
		ACPE Accreditation Process Leader	2004
		Ad Hoc Advisory Committee on Consultative Ser- vices	
		Chair	2005