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**ACADEMIC BACKGROUND**

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**I. General data**

Office address	2-142L Katz Group Centre for Pharmacy and Health Research University of Alberta, Edmonton AB, Canada T6G 2E9 Phone: 780-248-1557 Fax: 780-492-1217
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Nationality	Mexican / Canadian.
Language	Fluent in Spanish and English.

**II. Education & Training** (most recent first)

- Oct/2005 – Sep/2008 Postdoctoral Fellow in Medicinal Chemistry; Laboratory of Comparative Carcinogenesis, National Cancer Institute at Frederick, MD USA. Supervisor: Dr. Larry K. Keefer. Project: “Development of new nitric oxide-releasing anti-inflammatory drugs possessing a *N*-diazen-1-ium-1,2-diolate moiety”.
- Sep/2001 – Oct/2005 Ph.D. Pharmaceutical Sciences (Medicinal Chemistry); Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta, Canada. Supervisor: Dr. Edward E. Knaus. Thesis: “Nitric oxide releasing calcium channel modulators and non-steroidal anti-inflammatory drugs possessing a *N*-diazoniumdiolate moiety.”
- Sep/1994 – Jul/1997 M. Sc. Pharmaceutical Chemistry, Faculty of Chemistry, National Autonomous University of Mexico. Supervisor: Rafael Castillo-Bocanegra. Thesis: “Design and synthesis of methyl *N*-phenyl carbamate with potential anthelmintic activity.”
- Sep/1989 – Aug/1994 B. Sc. Pharmaceutical Chemistry, Faculty of Chemical Sciences, University of Guadalajara, México. Supervisor: Pedro Velázquez-Ponce. Thesis: “Design and synthesis of 2-nitroimidazole derivatives with potential trypanocidal activity”.

### III. Academic appointments

- Jul/2014 – Current Associate Professor, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta, Canada.
- Oct/2008 – Jun/2014 Assistant Professor, Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta, Canada.
- Sep/1995 – Aug/1996 Assistant Professor, Faculty of Chemistry, National Autonomous University of Mexico, Mexico City.

### IV. Awards and Honors

- 2006, 2007 & 2008 Federal Technology Transfer Award. National Cancer Institute, Maryland, US.
- 2005 Graduate Intern Tuition Supplement. University of Alberta, Canada.
- 2004 Mike Wolowik Graduate Scholarship. University of Alberta, Canada.
- 2004 Arthritis Association of Edmonton Graduate Scholarship. Edmonton, Canada.
- 2002, 2003 Shoppers Drug Mart Graduate Scholarship in Pharmaceutical Sciences. University of Alberta, Canada.
- 2002 Pharmacy Ph.D. Alumni Graduate Student Scholarship. University of Alberta, Canada.
- 2002 Novartis Pharmaceuticals Canada Inc. Graduate Scholarship. University of Alberta, Canada.
- 2001-2004 National Council of Science and Technology Scholarship. CONACYT, México.
- 1994-1996 National Council of Science and Technology Scholarship. CONACYT, México.

### V. Professional organizations

Canadian Society for Chemistry (CSC).

Canadian Society for Pharmaceutical Sciences (CSPS) – Board of Directors (Jan 2014 – Dec 2015).

Mexican Chemical Society (SQM) – Member and Associate Editor for the Journal.

**SERVICE****I. Student Supervisions***Graduate students (last, first name)*

Name (Last, first)	Degree	Period	Thesis title	Graduated	Current Position
Jain, Sarthak	M. Sc.	Sep/2009 Aug/2011	NSAID prodrugs with improved anti-inflammatory activity and low ulcerogenic: wake up call to pharmaceutical companies and health authorities.	Yes	Ph.D. student, University of Edinburgh
Aldawsari, Fahad	PhD	Jan/2010 – Jan 2016	Design, synthesis and biological evaluation of aspirin-like resveratrol derivatives.	Yes	Saudi Food and Drug Administration
Rodríguez, Alexandra	MSc	May/2012 – current	Pharmacological modulation of the FOXM1 transcription factor in cancer chemoprevention and treatment.	Yes	-
Elshaikh, Asya	MSc	Dec/2014 – current	Biological evaluation of FDA-approved drugs on the transcriptional activity of the FOXM1 transcription factor.	No	-
Tabatabaei, Amirhossein	PhD	May/2015 – current	Chemical modulation of the FOXM1 transcription factor in cancer treatment and prevention	No	-

*Supervision of visiting students (last, first name)*

Last, first name	From	Period	Degree	Current Position
Ozadali, Keriman	Hacettepe University, Turkey	Jun - Sep/2009	PhD	Assistant Professor, Hacettepe University, Turkey
Farag, Ayman	Cairo University, Egypt	May-Sep/2011	PhD	Postdoctoral fellow, Cairo University
Ullah, Nasir	University of Peshawar, Pakistan	Aug/2011 – Jan/2012	PhD	Graduated in July 2012
Amorim, Michael	University of Sao Paulo, Brazil	Jan – July/2014	MSc	Staff chemist at “Natura Cosmetics,” Brazil.
Aguayo, Rodrigo	UNAM, Mexico	Jun – Aug/2014	MSc	Graduated in December 2014.
Marques, Luiz	University of Maringa, Brazil	Jan – Dec/2014	PhD	He graduated in February 2015.

Zhang, Minzhe	Zhejiang University, China	Jul – Sep/2014	MSc	Ph.D. student in China
Loredo-Calderon, Erika	The Autonomous University of Nuevo Leon.	July 2016 – June 2017	PhD	Ph.D. student in Mexico

*Postdoctoral fellows*

Name (Last, first)	Description	Period	Current position
Perez, David	Dr. Perez started his training as a postdoctoral fellow in my research group on October 18 <sup>th</sup> 2016. The National Council of Science and Technology (CONACYT, Mexico) provided a fellowship for 12 months (November 2016 to October 2017) to research the chemical synthesis and biological evaluation of nucleotide-based FOXM1 inhibitors.	Nov 2016 – Oct 2017	Currently working in Alberta

*Undergraduate students*

Name (Last, first)	Description	Period	Current position
Tran, Susan	PHARM 498 student	May – Aug/2011	Staff Pharmacist at Strathcona Prescription Center
Tzeggal, Sennait	Summer student (Faculty of Science, Dept. of Biological Sciences, U. of A.)	May – Aug/2012	Graduated (summer 2012) from the U. of A.
Teoh, Zach	Summer student (Faculty of Science, Dept. of Biological Sciences, U. of A.)	July 16-Aug17, 2012	Second-year undergrad student (U. of A.), Faculty of Science.
Anchuri, Kavya	High school student	July 2-August 17, 2012	High school student.
Isenor, Karen	PHARM 498 student	Sep – Dec 2012	She is a Clinical Pharmacist at Amherst Pharmasave in Nova Scotia.
Cheng, Stephanie	PHARM 498 student	Jan – Apr 2013	“Floater” Pharmacist at Safeway, southern Alberta.
Lamarche, Brendon	Summer student	May – Aug 2014	He is an undergraduate student at the Faculty of Science (U of A).

Giga, Searra	Summer student	May – August 2016	Undergraduate Pharmacy student (Class of 2019).
Deacon, Tyeren	Summer student	May – August 2017	Undergraduate Pharmacy student (Class of 2020).

*Significant awards received by my students during their tenure:*

Sarthak Jain	Dr. Ronald Micetich Memorial Graduate Scholarship
Fahad Aldawsari	Saudi Government Scholarship
Alexandra Rodríguez	National Council of Science and Technology (CONACYT) Scholarship
Keriman Ozadali	Scientific and Technical Research Council of Turkey (TUBITAK) Scholarship
Nasir Ullah	Higher Education Commission of Pakistan Scholarship & Bench Fee
Amirhossein Tabatabaei	Antoine Noujaim Graduate Scholarship in Pharmaceutical Sciences

**II. Supervisory Committees** (most recent at the end)

Candidate (Last, First name)	Committee	Degree / Supervisor	Date
Sullivan, Erin	Supervisory	Ph.D. / Dr. Tykwinski <sup>1</sup>	2008 – 2011
Bhandari, Krishna	Supervisory	Ph.D. / Dr. Doschak <sup>2</sup>	2008 – 2012
Soudy, Rania	Supervisory	Ph.D. / Dr. Kaur <sup>2</sup>	2008 – 2012
El Gendy, Mohamed	Supervisory	Ph.D. / Dr. El-Kadi <sup>2</sup>	2008 – 2012
Aghazadeh, Ali	Supervisory	PhD / Dr. Jamali <sup>2</sup>	2011 – 2014
Etayash, Hashem	Supervisory	MSc / Dr. Kaur <sup>2</sup>	2011 – 2013
Tietz, Ole	Supervisory	Ph.D. / Dr. Wuest <sup>3</sup>	2012 – 2015
Garg, Shyam	Supervisory	Ph.D. / Dr. Lavasanifar <sup>2</sup>	Dec 2012 - Sep 2015
Asghar, Waheed	Supervisory	Ph.D. / Dr. Jamali <sup>2</sup>	2010-2015
Way, Jenilee	Supervisory	MSc / Dr. Wuest <sup>3</sup>	2011-2014
Lesyk, Gabriela	Supervisory	MSc / Dr. Jurasz <sup>2</sup>	Jun 2014 – Current
Yan, Meng Jie	Supervisory	MSc / Dr. Jurasz <sup>2</sup>	Aug 2014 – Current
Valdivieso-Ramirez, Carla	Supervisory	MSc / Dr. Aranda-Saldana <sup>4</sup>	2015-2016
Bernard-Gauthier, Vadim	Supervisory	Ph.D./Dr. Ralf Schirmacher <sup>5</sup>	October 6 <sup>th</sup> , 2015
Meng Jie Yan	Supervisory	M. Sc. / Dr. Jurasz <sup>2</sup>	Sep 2014 - Sep 2016

<sup>1</sup>Department of Chemistry, Faculty of Science, University of Alberta.

<sup>2</sup>Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta.

<sup>3</sup>Cross Cancer Institute, University of Alberta-Alberta Health Services.

<sup>4</sup>Agriculture/Forestry, University of Alberta.

<sup>5</sup>Department of Oncology, Faculty of Medicine and Dentistry, University of Alberta.

**II. Exam Committees** (most recent at the end)

Candidate (Last, First name)	Committee	Degree / Supervisor	Date
Zheng, Ben	Exam	Ph.D. / Dr. Hall <sup>1</sup>	Apr/2010 – Aug/2012
Ahmed, Sahar	Exam	Ph.D. / Dr. Kaur <sup>2</sup>	May/2010
Soliman, Wael	Exam	Ph.D. / Dr. Kaur <sup>2</sup>	Mar/2011
Zou, Lu	Exam	M.Sc. / Dr. Lowary <sup>1</sup>	Sep/2011
Amara, Isaa	Exam	Ph.D. / Dr. El-Kadi <sup>2</sup>	Nov/2011
Raghuwanshi, Dharmendra	Exam	Ph.D. / Dr. Kaur <sup>2</sup>	July 27 <sup>th</sup> , 2012
Shahin, Mostafa H.	Exam	Ph.D. / Dr. Kaur <sup>2</sup>	Sep 21 <sup>st</sup> , 2012
Etayash, Hashem	Exam	Ph.D. / Dr. Kaur <sup>2</sup>	Oct 2 <sup>nd</sup> , 2012
Marshall, Alison	Exam	M.Sc. / Dr. Wuest <sup>3</sup>	Jul 21 <sup>st</sup> , 2014
Dharmaraja, A.	Exam	PhD / Dr. Chakrapani <sup>4</sup>	Jan 30 <sup>th</sup> 2015
Almukainzi, May	Exam	Ph.D. / Dr. Loebenberg <sup>2</sup>	May 5 <sup>th</sup> , 2015
Meng Jie Yan	Exam	M. Sc. / Dr. Jurasz <sup>2</sup>	Sep 28 <sup>th</sup> 2016
Amel Hamza	Supervisory	M. Sc. / Dr. Doschak	February 3 <sup>rd</sup> 2017
Srijan Raha	Exam	M. Sc. / Dr. John Lewis <sup>5</sup>	April 24 <sup>th</sup> 2017
Marwa Al-Agili	Exam	M. Sc. / Dr. Dion Brocks	May 16 <sup>th</sup> 2017
Horia Jalily	Exam	M. Sc. / Dr. Khaled Barakat	August 29 <sup>th</sup> 2017
Samantha Leier	Supervisory	M. Sc. / Dr. Frank Wuest	September 9 <sup>th</sup> 2017

<sup>1</sup>Department of Chemistry, Faculty of Science, University of Alberta.

<sup>2</sup>Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta.

<sup>3</sup>Cross Cancer Institute, University of Alberta-Alberta Health Services.

<sup>4</sup>Indian Institute of Science Education and Research (IISER, Pune, India).

<sup>5</sup>Faculty of Medicine and Dentistry, University of Alberta.

**III. Committees***Faculty of Pharmacy and Pharmaceutical Sciences*

2009 – 2010	Academic Standards Committee (Accreditation Committee)
2009 – 2012	Undergraduate Admissions Committee
2009 – 2012	Undergraduate Awards Committee
2009 – 2013	Assessment Committee
2011 – 2013	Faculty Development Seminar Series Committee
2013 – 2014	APSA Faculty Representative
2013 – Current	International Committee
2013 – Current	Graduate Studies Committee
Oct 2014 – Current	Working group for the new entry-to-practice PharmD curriculum
Sep 2014 – Current	Curriculum Committee

*University of Alberta*

2011 – 2013	Standing Advisory Committee on International Engagement (SACIE)
2011 – 2013	SACIE Graduate Program Subcommittee
2011 – 2013	Education Abroad Award Committee
Sep 2014 – Current	Standing Committee on Convocation

**IV. Teaching***Undergraduate courses*

Course	Term	Contact hours per term	Role
PHARM 307 (Dermatology)	Fall	1	Contributor
PHARM 367 (Cardiology)	Winter	4	Contributor
PHARM 417 (Neurology)	Fall	3	Contributor
PHARM 427 (Pain)	Winter	6	Coordinator / contributor
PHARM 447 (Psychiatry)	Winter	4	Contributor
PHARM 467 (Oncology)	Fall	2	Contributor
PHARM 487 (Pulmonary)	Fall	1	Contributor
PHARM 497 (Endocrine)	Winter	4	Contributor
PHARM 498 (Directed project)	Summer	20	Contributor

*Graduate courses*

Course	Term	Contact hours	Role
PHARM 570 (Advanced Spectroscopic Analysis)	Fall	20	Coordinator / contributor
PHARM 624 (Applications of NMR Spectroscopy to Pharmaceutical and Medicinal Chemistry)	Fall	48	Coordinator / contributor
PHARM 697 (Short seminar)	Fall & Winter	26	Coordinator / contributor
PHARM 698 (Advanced seminar)	Fall/Winter	6 <sup>a</sup>	Coordinator
PHARM 694 (Directed Project)	Fall	4 <sup>b</sup>	Contributor

<sup>a</sup>Average per term; contact hours may vary depending on the number of students presenting their long seminar.

<sup>b</sup>These are not class hours; this time refers to the number of hours dedicated to read and mark projects from students enrolled in this course.

**V. Service in Professional Associations**

Jan/2014 – Dec/2016	Board of Directors Canadian Society for Pharmaceutical Sciences
Jun/2014 – Current	Associate Editor Journal of the Mexican Chemical Society

**RESEARCH AND SCHOLARLY ACTIVITIES****I. Research Interests: development of cancer chemopreventive/chemotherapeutic agents**

My medicinal chemistry research program involves the design, synthesis, and biological evaluation of molecules that could potentially delay, inhibit, or cease carcinogenesis. I am particularly interested in experimental drugs with the ability to block the transcriptional activity of the oncogenic protein FOXM1:

*Forkhead box M1 (FOXM1) transcription factor modulators.*

FOXM1 is a transcription factor involved in cell replication; it is of the “master” regulators of cell cycle progression, particularly in the G1/S, and G<sub>2</sub>-M phase. FOXM1 is essential to couple DNA replication, cycle control, and mitosis. However, it has been implicated in promoting multiple steps of cancer progression, including the induction of mitogenic and survival signals, as well as the induction of tumor invasion, migration, and angiogenesis. Consequently, FOXM1 has been regarded as a reliable marker for early cancer detection and a promising target for arresting cancer growth and progression, which are ideal characteristics of an effective chemopreventive or chemotherapeutic drug.

**II. Research grants (active)**

Title of the grant	Source	Role	Total amount	Period of support
Design, synthesis and biological evaluation of aspirin-like resveratrol derivatives.	Saudi Arabian Cultural Bureau	PI	\$35,796	Jan/2011 – Dec/2012
Novel Biomarkers and Therapeutics for Intestinal Inflammation and Colon Cancer.	Alberta Innovates – Health Solutions	Co-PI	\$740,400	Mar/2013 – Feb/2017

**III. Research community**

*Reviewer for journals*

1. Anti-cancer Agents in Medicinal Chemistry
2. Bioorganic & Medicinal Chemistry
3. Bioorganic & Medicinal Chemistry Letters
4. Canadian Journal of Chemistry
5. Chemical Biology & Drug Design
6. Combinatorial Chemistry & High-throughput Screening
7. European Journal of Medicinal Chemistry
8. European Journal of Pharmaceutical Sciences

9. International Journal of Molecular Sciences
10. Journal of Biomedicine and Biotechnology
11. Journal of Medicinal Chemistry (ACS Publications)
12. Journal of Pharmacy and Pharmaceutical Sciences
13. Journal of the Mexican Chemical Society
14. Medicinal Chemistry
15. Medicinal Chemistry Communications
16. Medicinal Chemistry Letters (ACS Publications)
17. Medicinal Research Reviews
18. Mini-reviews in Medicinal Chemistry
19. Pharmaceutical Development and Technology

#### *Reviewer for granting agencies*

1. The Portuguese Foundation for Science and Technology (FCT; <http://www.fct.pt/>), grant application number: PTDC/QEQ-MED/0977/2012.
2. Portuguese Foundation for Science and Technology (FCT); grant application number: IF/00568/2014.

#### **IV. Publications**

##### *Refereed papers [published; (\*) denotes work as the corresponding author]*

1. Tabatabaei-Dakhili, S. A.; Aguayo-Ortiz, R.; Dominguez, L.; Velazquez-Martinez, C. A. Untying the knot of transcription factor druggability: Molecular modeling study of FOXM1 inhibitors. *Journal of Molecular Graphics and Modeling* (in print). 2018.
2. Salla, M.; Aguayo-Ortiz, R.; Said, A.; Zare, A.; Pandya, V.; Manaloor, R.; Fong, S.; Blankstein, A. R.; Gibson, S. G.; Ramos-Garcia, L.; Meier, P.; Singh-Bhullar, K.; Hubbard, B.; Fiteh, Y.; Vliagoftis, H.; Goping, I. S.; Brocks, D.; **Velázquez-Martínez, C. A.**; Baksh, S. Identification and Characterization of Novel Receptor Interacting Serine/threonine-Protein Kinase 2 (RIPK2) Inhibitors Using Structural Similarity Analysis. *Journal of Medicinal Chemistry* (jm-2017-010329, *submitted*).
3. Aguiar, R. P.; Aldawsari, F. S.; Wiirzler, L. A. M.; Silva-Filho, S. E.; Silva-Comar, F. M. S.; Bersani-Amado, C. A.; **Velázquez-Martínez, C. A.** Cuman, R. K. N. Synthesis and biological evaluation of new tyrosol-salicylate derivatives as a potential anti-inflammatory agent, *Current Pharmaceutical Research*. In print.
4. Marques-Wiirzler, L. A.; Pazinato-Aguiar, R.; Bersani-Amado, C. A.; **Velázquez-Martínez, C. A.**; Nakamura-Cuman, R. K.; The Anticancer activity of eugenol is not related to regulation of the oncogenic transcription factor *Forkhead Box M1*. *Acta Scientiarum Health Sciences* 38, 2016, 159-163.

5. Goldhahn, K.; Kloesch, B.; Aldawsari, F. S.; **Velázquez-Martínez, C. A.**; Schmetterer, K.; Stainer, G. Resveratrol and resveratrol-salicylate hybrid molecule suppress cytokine production and proliferation of human CD4 + T-cells. *Annals of the Rheumatic Diseases* 75 (Suppl. 1), 2016, A60.1-A60.
6. Aldawsari, F. S.; Pazinato-Aguiar, R.; Marques-Wiirzler, L. A.; Aguayo-Ortiz, R.; Aljuhani, N.; Nakamura Cuman, R. K.; Medina-Franco, J. L.; Siraki, A. G.; **Velázquez-Martínez, C. A.\*** Anti-inflammatory and Antioxidant Properties of a Novel Resveratrol-salicylate Hybrid Analogue. *Bioorganic & Medicinal Chemistry Letters* 26, 2016, 1411-1415.
7. Wisniewski-Rebecca, E. S.; Rocha, B. A.; Wiirzler, L. A. M.; Cuman, R. K. N.; **Velazquez-Martinez, C. A.**; Bersani-Amado, C. A. Synergistic effects of anethole and ibuprofen in acute inflammatory response, *Chemico-Biological Interactions* 242, 2015, 247-253.
8. Ullah, N.; Huang, Z.; Sanaee, F.; Rodriguez-Dimitrescu, A.; Aldawsari, F. S.; Jamali, F.; Bhardwaj, A.; Islam, N.; **Velázquez-Martínez, C. A.\*** NSAIDs do not require the presence of a carboxylic acid to exert their anti-inflammatory effect – why do we keep using it? *Journal of Enzyme Inhibition & Medicinal Chemistry* 2015. ISSN: 1475-6366 (print), 1475-6374 (electronic).
9. Aldawsari, F. S.; Aguayo-Ortiz, R.; Kapilashrami, K.; Yoo, J.; Luo, M.; Medina-Franco, J. L.; **Velázquez-Martínez, C. A.\*** Resveratrol-salicylate derivatives as selective DNMT3 inhibitors and anticancer agents *Journal of Enzyme Inhibition & Medicinal Chemistry* 2015. ISSN: 1475-6366 (Print) 1475-6374 (Online).
10. Chattopadhyay, M.; Nath, N.; Kodela, R.; Nesbitt, D. E.; **Velázquez-Martínez, C. A.**; Khosrow Kashfi. Hydrogen sulfide-releasing naproxen suppresses colon cancer cell growth and inhibits NF-κB signaling. *Drug Design, Development and Therapy* 9, 2015, 4873-4882.
11. Aldawsari, F. S. and **Velázquez-Martínez, C. A.\*** 3,4',5-*trans*-Trimethoxystilbene; a natural analog of resveratrol with enhanced anticancer potency. *Investigational New Drugs* 33, 2015, 775–786.
12. Aldawsari, F. S.; Elshenawy, O. H.; El Gendy, M. A. M.; Aguayo-Ortiz, R.; Baksh, S.; El-Kadi, A. O. S.; **Velázquez-Martínez, C. A.\*** Design and synthesis of resveratrol–salicylate hybrid derivatives as CYP1A1 inhibitors. *Journal of Enzyme Inhibition and Medicinal Chemistry* 30 (6), 2015, 884-895.
13. Matveychuk, D.; Nunes, E.; Ullah, N.; Velazquez-Martinez, C. A.; Baker, G. B. Elevation of rat brain tyrosine levels by phenelzine is mediated by its active metabolite β-phenylethylidenehydrazine. *Progress in Neuro-Psychopharmacology & Biological Psychiatry* (August) 53, 2014, 67-73.
14. Basudhar, D.; Bharadwaj, G.; Cheng, R.; Jain, S.; Sa, Shi; Ridnour, L.; Caceres, V.; Spadari-Bratfisch, R.; Paolucci, N.; **Velázquez-Martínez, C. A.**; Wink, D.; Miranda, K. Synthesis and chemical and biological comparison of nitroxyl- and nitric oxide-releasing diazeniumdiolate-based aspirin derivatives. *Journal of Medicinal Chemistry* (October) 56, 2013, 7804-7820. [Selected to be the cover for the November issue of this Journal.](#)
15. Matveychuk, D.; Nunes, E.; Ullah, N.; **Velázquez-Martínez, C. A.**; MacKenzie, E. M.; Baker, G. B. Comparison of phenelzine and geometric isomers of its active metabolite, β-phenylethylidenehydrazine, on rat brain levels of amino acids, biogenic amine neurotransmitters and methylamine. *Journal of Neural Transmission* (June) 2013, 120, 987-996.
16. Kodela, R.; Chattopadhyay, M.; Goswami, S.; Gan, Z. Y.; Nia, K. V.; Rao, P. N. P.; **Velázquez-Martínez, C. A.**; Kashfi, K. Positional isomers of aspirin are equally potent in inhibiting colon cancer cell growth:

- differences in mode of cyclooxygenase inhibition. *Journal of Pharmacology and Experimental Therapeutics* (April) 2013, 345, 85-94. [PMID: 23349335](#).
17. Elgemeie, G.H.; Amin, K.M.; El-Badry, O.M.; Hassan, G.S.; [Farag, A.B.](#); **Velázquez-Martínez, C. A.**; El-Kadi, A.O. Synthesis and in vitro antitumor activity of new imidazole and thienimidazole thioglycosides. *Journal of American Science* 2012, 8, 1071-1076.
  18. Chenga, H.; Molica, M.; Wanga, L.; Wu, S.; **Velázquez-Martínez, C. A.**\* Effects of nitric oxide-releasing nonsteroidal anti-inflammatory drugs (NONO-NSAIDs) on melanoma cell adhesion. *Toxicology and Applied Pharmacology* 264, 2012, 161-166. [Note: I share the credit with Dr. Wu (Ohio State University) who is also a corresponding author of this paper]. [PubMed ID: 22889880](#).
  19. [Jain, S.](#); [Tran, S.](#); El Gendy M. A. M.; Kashfi, K.; Jurasz, P.; **Velázquez-Martínez, C. A.**\* Nitric oxide release is not required to decrease the ulcerogenic profile of NSAIDs. *Journal of Medicinal Chemistry* 55, 2012, 688-696. [Pubmed ID: 22148253](#).
  20. [Özadali, K.](#); Özkanlı, F.; [Jain, S.](#); Rao, P. N. P.; **Velázquez-Martínez, C. A.**\* Synthesis and biological evaluation of isoxazolo[4,5-d]pyridazin-4(5H)-one analogs possessing a 1,3,4-thiadiazole or 1,3,4-triazole-5-thione rings: dual inhibitors of cyclooxygenases and 5-lipoxygenase with anti-inflammatory activity. *Bioorganic & Medicinal Chemistry* 20, 2012, 2912-2922. [Pubmed ID: 22475926](#).
  21. Chattopadhyay, M.; Kodela, R.; Nath, N.; Street, C. R.; **Velázquez-Martínez, C. A.**; Boring, D.; Kashfi, K. Hydrogen sulfide-releasing aspirin modulates xenobiotic metabolizing enzymes in vitro and in vivo. *Biochemical Pharmacology* 83, 2012, 733-740. [Pubmed ID: 22209714](#).
  22. Chattopadhyay, M.; Kodela, R.; Nath, N.; Dastagirzada, Y. M.; **Velázquez-Martínez, C. A.**; Boring, D.; Kashfi, K. Hydrogen sulfide-releasing NSAIDs inhibit the growth of human cancer cells: A general property and evidence of a tissue type-independent effect. *Biochemical Pharmacology* 83, 2012, 715-722. [Pubmed ID: 22222427](#).
  23. Flores-Santana, W.; Moody, T.; Chen, W.; Gorczyński, M. J.; Shoman, M. E.; **Velázquez-Martínez, C. A.**; Thetford, A.; Mitchell, J. B.; Cherukuri, M. K.; King, B.; Wink, D. Nitroxide derivatives of nonsteroidal anti-inflammatory drugs exert anti-inflammatory and superoxide dismutase scavenging properties in A459 cells. *British Journal of Pharmacology* 165(4b), 2012, 1058-1067. [Pubmed ID: 21658022](#).
  24. Huang, Z.; **Velázquez, C.**; Abdellatif, K. R. A.; Chowdhury, M. A.; Reisz, J. A.; DuMond, J. F.; King, B. S.; Knaus, E. E. Ethanefulfohydroxamic acid ester prodrugs of nonsteroidal anti-inflammatory drugs (NSAIDs): synthesis, nitric oxide and nitroxyl release, cyclooxygenase inhibition, anti-inflammatory, and ulcerogenic index studies. *Journal of Medicinal Chemistry* 54, 2011, 1356-1364. [Pubmed ID: 21280601](#).
  25. Abdellatif, K. R. A.; **Velázquez, C.**; Huang, Z.; Chowdhury, M. A.; Knaus, E. E. Triaryl (Z)-olefins suitable for radiolabeling with iodine-124 or fluorine-18 radionuclides for positron emission tomography imaging of estrogen positive breast tumors. *Bioorganic & Medicinal Chemistry Letters* 21, 2011, 1195-1198. [Pubmed ID: 21237640](#).
  26. Chowdhury, M. A.; Huang, Z.; Abdellatif, K. R. A.; Dong, Y.; Yu, G.; **Velázquez, C.**; Knaus, E. E. Synthesis and biological evaluation of indomethacin analogs possessing a *N*-difluoromethyl-1,2-dihydropyridin-2-one ring system: A search for novel cyclooxygenase and lipoxygenase inhibitors. *Bioorganic & Medicinal Chemistry Letters* 20, 2010, 5776-5780. [Pubmed ID: 20727750](#).

27. Huang, Z.; **Velázquez, C.**; Abdellatif, K.; Chowdhury, M.; Jain, S.; Reisz, J.; DuMond, J.; King B.; Knaus, E. Acyclic triaryl olefins possessing a sulfohydroxamic acid pharmacophore: synthesis, nitric oxide/nitroxyl release, cyclooxygenase inhibition, and anti-inflammatory studies. *Organic & Biomolecular Chemistry* 8, 2010, 4124-4130. [Pubmed ID: 20664853](#).
28. Abdellatif, K. R. A.; **Velázquez, C.**; Huang, Z.; Chowdhury, M. A.; Knaus, E. E. Triaryl (Z)-olefins suitable for radiolabeling with carbon-11 or fluorine-18 radionuclides for positron emission tomography imaging of cyclooxygenase-2 expression in pathological disease. *Bioorganic & Medicinal Chemistry Letters* 20, 2010, 5245-5250. [Pubmed ID: 20655211](#).
29. Chattopadhyay, M.; **Velázquez, C.**; Pruski, A.; Nia, K. V.; Abdellatif, K.; Keefer, L. K.; Kashfi, K. Comparison between NO-ASA and NONO-ASA as safe anti-inflammatory, analgesic, antipyretic, antioxidant. *Journal of Pharmacology and Experimental Therapeutics* 335, 2010, 443-450. [Pubmed ID: 20679133](#).
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34. Chowdhury, M. A.; Abdellatif, K.; Dong, Y.; Yu, G.; Huang, Z.; Das, D.; **Velázquez, C.**; Suresh, M. R.; Knaus, E. E. Celecoxib analogs possessing a N-(4-nitrooxybutyl)piperidin-4-yl or N-(4-nitrooxybutyl)-1,2,3,6-tetrahydropyridin-4-yl nitric oxide donor moiety: Synthesis, biological evaluation, and nitric oxide release studies. *Bioorganic & Medicinal Chemistry Letters* 20, 2010, 1324-1329. [Pubmed ID: 20097072](#).
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48. Fassihi, A.; **Velázquez, C.**; Knaus, E. Synthesis of dialkyl 1,4-dihydro-2,6-dimethylpyridine-3,5-dicarboxylates and alkyl 1,4-dihydro-2,6-dimethyl-3-nitropyridine-5-carboxylates possessing a C-4 2,4-dioxo-1,2,3,4-tetrahydropyrimidin-5-yl (uracil) substituent to determine calcium channel modulation structure-activity relationships. *Journal of Heterocyclic Chemistry* 41, 2004, 263-266. [ISI: 000221155800018](#).
49. **Velázquez, C.**; Vo, D.; Knaus, E. Synthesis, nitric oxide release and calcium channel modulation activities of 4-aryl-1,4-dihydro-2,6-dimethyl-5-nitro-3-[O<sup>2</sup>-alkyl-1-(pyrrolidin-1-yl)diazen-1-ium-1,2-diolate]pyridine carboxylates. *Drug Development Research* 60, 2003, 204-216.

#### V. Abstracts/Presentations [(\*) denotes work as principal investigator]

1. Breitenbach, J. S.; Goldhahn, K.; Aldawsari, F.; Velazquez-Martinez, C. A.; Steiner, G.; Kloesch, B. Immunosuppressive, antiproliferative and pro-apoptotic effects of two novel resveratrol-salicylate hybrid molecules on jurkat T cells. Poster presentation at the EULAR 2018 Congress, Amsterdam, Netherlands from 13-16 June 2018.
2. Tabatabaei-Dakhili, S. A.; Gopal, K.; Morgan, A.; Siraki, A.; Ussher, J.; **Velazquez-Martínez, C. A.\*** Novel selective FOXM1 transcriptional program suppressors. Poster presentation, Faculty of Pharmacy and Pharmaceutical Sciences Research Day, November 24<sup>th</sup>, 2016. Edmonton, AB. Canada.
3. Loredó-Calderon, E.; Cordero-Díaz, A.; Hernández-Fernández, E.; Rivas-Galindo, V.; **Velazquez-Martínez, C. A.\***; Lopez-Cortina, S.\* One-pot synthesis of new  $\alpha$ -aminophosphonates under microwave irradiation. Poster presentation, Faculty of Pharmacy and Pharmaceutical Sciences Research Day, November 24<sup>th</sup>, 2016. Edmonton, AB. Canada.
4. Elshaikh, A.; **Velazquez-Martínez, C. A.\*** Targeting the oncogenic FOXM1 transcription factor in cancer treatment. Poster presentation, Faculty of Pharmacy and Pharmaceutical Sciences Research Day, November 24<sup>th</sup>, 2016. Edmonton, AB. Canada.
5. **Velazquez-Martínez, C. A.\*** Targeting the FOXM1 transcription factor in cancer treatment and (possibly) cancer imaging. Oral presentation, Western Canadian Medicinal Chemistry Workshop, Saskatoon, SK. Canada, September 23<sup>rd</sup> to 25<sup>th</sup> 2016.
6. Tabatabaei Dakhili, S. A.; **Velazquez-Martínez, C. A.\*** Untying the knot on transcription factors druggability, poster presentation, Western Canadian Medicinal Chemistry Workshop, Saskatoon, SK. Canada, September 23<sup>rd</sup> to 25<sup>th</sup> 2016.
7. Elshaikh, A.; **Velazquez-Martínez, C. A.\*** Poster presentation: "Targeting the oncogenic FOXM1 transcription factor in cancer treatment", Canadian Society for Pharmaceutical Sciences, Vancouver BC, Canada. May 30<sup>th</sup>-June 3<sup>rd</sup> 2016.
8. Katrin Goldhahn, Fahad Aldawsari, Burkhard Kloesch, Guenter Steiner, **Carlos Velazquez-Martínez**, Klaus Schmetterer. "Resveratrol and a resveratrol-salicylate hybrid molecule: a comparative study in CD4<sup>+</sup> T-cells". Poster presentation at the 4<sup>th</sup> European Congress of Immunology, Vienna, Austria. September 6<sup>th</sup> to 9<sup>th</sup> 2015.
9. Salla, M.; Gordon, M.; Aldawsari, F.; **Velázquez-Martínez C. A.**; Baksh, S. Resveratrol Derivatives: Inhibitors of NF- $\kappa$ B Activity and Potential Therapeutics for Inflammatory Bowel Disease and Cancer.

Cancer Research Institute of Northern Alberta (CRINA) research day, November 15<sup>th</sup>, 2015, Katz Building, Edmonton AB.

10. Said, A.; Fiteih, Y; Salla, M.; Gordon, M.; Volodko, N.; Aldawsari, F.; Aguayo-Ortiz, R.; **Velázquez-Martínez C. A.**; Baksh, S. Pre-clinical Therapeutics for Inflammatory Bowel Disease (IBD) and IBD-related Colorectal Cancer (poster presentation). Cancer Research Institute of Northern Alberta (CRINA) research day, November 15<sup>th</sup>, 2015, Katz Building, Edmonton AB.
11. Aldawsari, F.; Chattopadhyay, M.; Yoo, J.; Rao, P. N. P.; Medina-Franco, J.; Kashfi, K.; **Velázquez-Martínez, C. A. (\*)** Design, synthesis, and biological evaluation of resveratrol analogs as anti-inflammatory and potential chemopreventive agents. Oral presentation at the 96<sup>th</sup> Canadian Chemistry Conference & Exhibition. Quebec, QC. May 30<sup>th</sup>, 2013. [Selected for the first prize in the Biological Medicinal Student \(oral national competition\).](#)
12. Rodriguez-Dimitrescu, A.; Chattopadhyay, M.; Ravinder, K.; Kashfi, K.; **Velázquez-Martínez, C. A. (\*)** Pharmacological modulation of forkhead box M1 (FoxM1) transcription factor in cancer chemoprevention and treatment Oral presentation at the 96<sup>th</sup> Canadian Chemistry Conference & Exhibition. Quebec, QC. May 30<sup>th</sup>, 2013.
13. Aldawsari, F.; Chattopadhyay, M.; Yoo, J.; Rao, P. N. P.; Medina-Franco, J.; Kashfi, K.; **Velázquez-Martínez, C. A. (\*)** Design, synthesis, and biological evaluation of resveratrol analogs as anti-inflammatory and potential chemopreventive agents. Poster presentation. Cancer Research Conference 2012, Alberta Cancer Foundation. Banff, Alberta. Canada.
14. Chattopadhyay, M.; Ravinder, K.; Rodriguez-Dimitrescu, A.; **Velázquez-Martínez, C. A.**; Khasfi, K. Pharmacological modulation of the forkhead box M1 (FOX M1) transcription factor in cancer chemoprevention and treatment. Poster presentation. Cancer Research Conference 2012, Alberta Cancer Foundation. Banff, Alberta. Canada.
15. Chattopadhyay, M.; Kodela, R.; Rodriguez-Dimitrescu, A.; **Velázquez-Martínez, C. A.**; Kashfi, K. Pharmacological modulation of forkhead box M1 (FoxM1) transcription factor in cancer chemoprevention and treatment. Oral presentation at the 3<sup>rd</sup> Western Canadian Medicinal Chemistry Workshop. Saskatoon, SK. September 29<sup>th</sup>, 2012.
16. Aldawsari, F.; Chattopadhyay, M.; Kashfi, K.; Yoo, J.; Medina-Franco, J.; **Velázquez-Martínez, C. A. (\*)** Design, synthesis and biological evaluation of aspirin-like resveratrol derivatives as new anti-inflammatory and potential cancer chemopreventive agents. Poster presentation at the 95<sup>th</sup> Canadian Chemistry Conference (Canadian Society of Chemistry). Calgary, AB. May 22-25<sup>th</sup> 2012.
17. Nasirullah; Ul Islam, N.; Khan, I.; Aldawsari, F.; **Velázquez-Martínez, C. A. (\*)**. The carboxylic acid group present in NSAIDs is not essential to exert anti-inflammatory activity in vivo. Oral presentation at the 15<sup>th</sup> Hellenic Symposium on Medicinal Chemistry (European Federation for Medicinal Chemistry). Athens, Greece. May 25-27<sup>th</sup> 2012.
18. Nasirullah; Ul Islam, N.; Khan, I.; Bhardwaj, A.; **Velázquez-Martínez, C. A. (\*)**. In vivo anti-inflammatory activity of NSAIDs without the presence of a carboxylic acid group. 3<sup>rd</sup> Spring Research Symposium, Institute of Chemical Sciences, University of Peshawar, Pakistan. March 7<sup>th</sup>, 2012.
19. Aldawsari, F.; Chattopadhyay, M.; Yoo, J.; Rao, P. N. P.; Medina-Franco, J.; Kashfi, K.; **Velázquez-Martínez, C. A. (\*)** Synthesis and biological evaluation of resveratrol analogues as anti-inflammatory and potential chemopreventive agents; Faculty of Pharmacy and Pharmaceutical Sciences Research Day, Edmonton, Alberta; Canada. November 2011. [Best poster for a junior graduate student.](#)

20. Jain, S.; Tran, S.; El Gendy, M.; El-Kadi, A. O.; **Velázquez-Martínez, C. A. (\*)**. Nitric oxide-release is not required to decrease the ulcerogenic profile of NSAIDs. Poster presentation at GDCh Wissenschaftsforum Chemie 2011, Bremen, Germany, September 4-7<sup>th</sup> 2011.
21. Jain, S.; El Gendy, M.; El-Kadi, A. O.; **Velázquez-Martínez, C. A. (\*)**. Novel prodrugs of NSAIDs with improved anti-inflammatory activity, low ulcerogenicity with potential chemopreventive properties; do we really need a nitric oxide-releasing group? Poster presentation at the Canadian Society for Pharmaceutical Sciences National Symposium, Montreal, Canada. May 2011.
22. Aldawsari, F.; Rao, P. N. P.; **Velázquez-Martínez, C. A. (\*)**. Design, synthesis, and biological evaluation of aspirin-like resveratrol derivatives as potential colon cancer chemopreventive agents. Poster presentation at the Canadian Society for Pharmaceutical Sciences National Symposium, Montreal, Canada. May 2011.
23. Jain, S.; El Gendy, M.; El-Kadi, A. O.; **Velázquez-Martínez, C. A. (\*)** Novel prodrugs of NSAIDs with improved anti-inflammatory activity, low ulcerogenicity with potential chemopreventive properties; do we really need a nitric oxide-releasing group? Poster presentation at the Faculty of Pharmacy and Pharmaceutical Sciences Research Day, Edmonton, Canada. November 2010.
24. Özadali, K.; Özkanli, F.; Jain, S.; Rao, P.; **Velázquez-Martínez, C. A. (\*)** Synthesis and cyclooxygenase inhibitory activities of some 1,3,4-thiadiazole and 1,2,4-triazole-5-thione derivatives of isoxazolo[4,5-d]pyridazin-4(5H)-ones. Poster presentation at the 4th International Meeting on Medicinal and Pharmaceutical Chemistry, Ankara, Turkey. September 2010.
25. Jain, S.; **Velázquez-Martínez, C. A. (\*)** Design, synthesis, and biological evaluation of non-ulcerogenic non-steroidal anti-inflammatory prodrugs possessing polyphenols: is nitric oxide-release required? Poster presentation at the Western Canadian Medicinal Chemistry Workshop. Saskatoon, Canada. September 2010.
26. Jain, S.; **Velázquez-Martínez, C. A. (\*)** Non-ulcerogenic effective non-steroidal anti-inflammatory prodrugs of aspirin, ibuprofen, and indomethacin: is nitric oxide-release required? Poster presentation at the Canadian Society for Pharmaceutical Sciences, Vancouver, Canada. June 2010.
27. Chattopadhyay, M.; **Velázquez, C.**; Keefer, L.; Kashfi, K. Comparison between NO-ASA and NONO-ASA as safe anti-inflammatory, analgesic, antipyretic, anti-oxidant, chemopreventive prodrugs. Poster presentation at the Eighth Annual AACR International Conference on Frontiers in Cancer Prevention Research, Houston, Texas. December 7<sup>th</sup>. 2009.
28. Coppo, L.; **Velázquez, C.**; Di Giuseppe, D.; Di Simplicio, P.; Priora, R. Anti-aggregating effects of a nitric oxide-releasing aspirin (CVM-01) possessing a diazeniumdiolate moiety. Poster presentation at the 13th Annual Cardiac Sciences Research Day, University of Alberta, Edmonton, Canada. June 6<sup>th</sup>, 2009.
29. **Velázquez, C.**; Saavedra, J.; Citro, M.; Knaus, E.; Keefer, L. Second generation NONO-NSAIDs possessing a PROLI/NO Moiety: design, synthesis, biological evaluation, and nitric oxide release studies. Poster presentation at the 8th CCR-NCI Annual Fellows and Young Investigators Colloquium. Ocean City, Maryland. March 3-5, 2008.
30. **Velázquez, C.**; Keefer, L. Diazeniumdiolate-based NO-NSAIDs: a new class of anti-inflammatory, analgesic, GI-safe, and (potential) chemopreventive agents. Poster presentation at the AACR, Chemistry in Cancer Research Meeting, San Diego, California, US. February 4-7, 2007.

31. **Velázquez, C.**; Saavedra, J.; Keefer, L. Novel NONO-NSAIDs possessing a nitric oxide donor diazeniumdiolate moiety. Poster presentation at the Molecular Targets Faculty Retreat, Bethesda, Maryland, US. September 27, 2006.
32. **Velázquez, C.**; Keefer, L. Diazeniumdiolate-based NO-NSAIDs: a new class of anti-inflammatory, analgesic, GI-safe, and (potential) chemopreventive agents. Poster presentation at the Cancer Prevention Think Tank Symposium, National Cancer Institute, Frederick Maryland, US. December 8, 2006.
33. **Velázquez, C.**; Rao, P.N.; Knaus, E.; Keefer, L. Novel NONO-NSAIDs possessing a nitric oxide-donor diazeniumdiolate moiety. Poster presentation at the 4th International Conference of the Nitric Oxide Society, Chemistry and Therapeutic Applications of NO, Monterey, California, US. June 25-29, 2006.
34. **Velázquez, C.**; Knaus, E. Hybrid calcium channel modulators with nitric oxide release properties as prodrugs for the potential treatment of congestive heart failure. Poster presentation at the 7th annual symposium, Canadian Society for Pharmaceutical Sciences. Vancouver, British Columbia. 9-12 June 2004.
35. **Velázquez, C.**; Knaus, E. Synthesis, calcium channel modulation effects and nitric oxide release studies of novel calcium channel modulators for the potential treatment of congestive heart failure. Poster presentation at the 7th Annual Cardiac Sciences Research Day, University of Alberta, Edmonton, Canada. June 6<sup>th</sup>, 2003.
36. **Velázquez, C.**; Morales, S.; Hernandez-Campos, A.; Castillo-Bocanegra, R. Design and synthesis of methyl N-phenylcarbamates as potential anthelmintic drugs. Poster presentation at the V Chemical Congress of North America (ACS), Cancún Quintana Roo, México. November 11-15, 1997.
37. **Velázquez, C.**; Morales, S.; Hernandez-Campos, A.; Castillo-Bocanegra, R. Methyl N-phenylcarbamates with potential anthelmintic activity. Oral presentation at the XXIX Congreso Nacional de Ciencias Farmacéuticas, Acapulco Guerrero, México. October 27-31, 1996.

## VI. Invited speaker

1. Graduate course: *“Principles of drug action and disposition”* at the State University of Maringá, Brazil. August 15<sup>th</sup> to 19<sup>th</sup> 2016.
2. Invited presentation: *“Teaching the discipline of Medicinal Chemistry in the new PharmD curriculum at the University of Alberta,”* Oral presentation at the XIII National Meeting of Medicinal Chemistry Professors, University of Sao Paulo, Brazil. November 25<sup>th</sup> to 27<sup>th</sup> 2015.
3. Invited presentation: *“Chemical Modulation of the Forkhead Box M1 (FOXO1) Transcription Factor in Cancer Treatment and Prevention”*, **Velázquez-Martínez (\*)**; June 02/2014, International Symposium of Medicinal Chemistry, Vancouver BC, Canada.
4. Kodela, R.; Chattopadhyay, M.; **Velázquez-Martínez, C. A.**; Kashfi, K. Chemical modulation of the forkhead box M1 (FOXO1) transcription factor in cancer treatment and prevention. Podium presentation. Drug Discovery & Therapy World Congress. Boston, MA (USA) June 3<sup>rd</sup>, 2013.
5. Design, synthesis, and preliminary docking studies of new multi-target cancer chemopreventive polyphenols. Toxicology Research Group, University of Alberta. August 4<sup>th</sup>, 2011.

6. Design and synthesis of nitric oxide-releasing prodrugs. Tijuana Institute of Technology, Tijuana BC. Mexico. June 16<sup>th</sup>, 2006.
7. NONO-NSAIDs: the new generation of analgesic, anti-inflammatory drugs. National Cancer Institute, Frederick MD. July 6<sup>th</sup>, 2006.
8. Chromatographic Criteria for Validation in the Pharmaceutical Industry. Hewlett Packard Educational Center, México City. April 2<sup>nd</sup>, 1998.
9. Quality: Basic Concepts. Health Ministry Educational Center, México City. April 22-23<sup>rd</sup> 1998.
10. Serum Cholinesterase. National Laboratory, Health Ministry; México City. May 6<sup>th</sup>, 1998.
11. Pathogens. National Laboratory, Health Ministry; México City. May 18<sup>th</sup>, 1998.
12. Quality Manual. National Laboratory, Health Ministry; México city, México. May 29<sup>th</sup>, 1998.
13. Quality Control of Commercial Drugs (workshop). National Laboratory, Health Ministry; México City. August 3-7<sup>th</sup> 1998.
14. Epidemiological Program. National Laboratory, Health Ministry; México City. October 5<sup>th</sup>, 1998.
15. International Certification for Testing Laboratories. National Autonomous University of México, México City. October 9<sup>th</sup>, 1998.
16. Quality Control of Culture Media (workshop). National Laboratory, Health Ministry; México City. October 6-30<sup>th</sup> 1998.
17. Validation of Automated Dissolution Systems. Perkin-Elmer México, México City. November 10<sup>th</sup> 1998.
18. Standard Chemical Substances. National Laboratory, Health Ministry; México City. November 24<sup>th</sup>, 1998.
19. Calculation of Productivity. National Laboratory, Health Ministry; México City. August 6<sup>th</sup>, 1997.
20. UV/VIS Spectrophotometry. National Laboratory, Health Ministry; México City. July 11<sup>th</sup>, 1997.
21. Nomenclature of Organic Chemistry (workshop). National Laboratory, Health Ministry; México City. October 6-31<sup>st</sup> 1997.
22. Handling and Disposition of Hazardous Waste. National Laboratory, Health Ministry; México City. October 14<sup>th</sup>, 1997.
23. Verification and Calibration of Balances. National Laboratory, Health Ministry; México City. November 17-28<sup>th</sup> 1997.

#### *VOLUNTEER AND PUBLIC SERVICE*

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- 1) Volunteer for the Faculty of Pharmacy white coat ceremony 2010 and 2011.
- 2) Site set up volunteer. Canadian Breast Cancer Foundation, "CIBC run for the cure," October 1st and 2<sup>nd</sup> 2011. I coordinated one group of volunteers who helped setting-up tents and general activities at Churchill Square, Edmonton.
- 3) Judge: Special Awards in Health, 2010 Edmonton Regional Science Fair, Northern Alberta Institute of Technology (NAIT), April 10th 2010 (8:00 – 13:00).

- 4) Volunteer Spanish instructor at the Edmonton Hispanic Bilingual Association, September 2009 – Current.

#### PATENTS

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1. Novel RIPK2 inhibitors for the treatment of inflammatory bowel disease, 62/395,691, Provisional USA Patent application. 2016.
2. WO 2006/125016 A1, “Novel NSAIDs possessing a nitric oxide donor diazen-1-ium-1,2-diolate moiety”. Technology, Entrepreneur, and Company Development (TEC) Edmonton. University of Alberta, Canada.
3. WO 2007/127725 A2, “Diazeniumdiolated Non-steroidal Anti-inflammatory Drugs, Compositions Thereof, and Related Methods.” Technology Transfer Branch; National Cancer Institute, Frederick, USA.