

Daniel Efraín Winnica
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EDUCATION

- 1982-1986 BS-MS in Biochemistry: School of Chemical Sciences. National University of Cordoba. Argentina.
- 1992-1996 Ph.D. Chemical Sciences. School of Chemical Sciences. National University of Cordoba. Argentina. Graduate with honors.
- 2000-2002 Postdoctoral Training: School of Medicine. Department of Biochemistry and Molecular Biology, Argentina.
- 2004-2008 Postdoctoral Associate: Department of Environmental and Occupational Health, GSPH, University of Pittsburgh, Pittsburgh, PA. USA.
- 2023-2024 Graduate Certificate in Personalized and Genomic Medicine. Graduate School. University of Colorado. Anschutz Medical Campus.

LANGUAGES:

English, Spanish.

LABORATORY SKILLS:

Profound technical experience in biochemistry and areas related to protein purification, biochemical assays characterization and analysis; (SDS-PAGE), western blot, immunoprecipitation. RNA and DNA extraction.

Experience with mammalian cell culture (primary cells, cortical neurons and cell lines), mesenchymal stem cells; Air-liquid interface (ALI) cultures are a cell culture technique that mimics the natural environment of the respiratory tract; isolation of subcellular fractions as mitochondria and mitochondrial membranes, tissue dissection, histopathology (HE),/imaging, immunofluorescence, ELISA, basic knowledge of flow cytometry, cytology, serology. Trained in all aspects of small animal research including collection and analysis of tissue samples, blood samples and cells from these animals.

ACADEMIC APPOINTMENTS

- 2024-07-01 Associate Professor Research, University of Colorado. Division of Pulmonary Sciences & Critical Care Medicine, Anschutz Medical Campus
- 2016-06-30-2024 Assistant Research Professor, -Research University of Colorado
Division of Pulmonary Sciences & Critical Care Medicine, Anschutz Medical Campus.
- 2014-2016 Research Assistant Professor, Asthma Institute, Med- Div of Pulmonary Medicine, School of Medicine, University of Pittsburgh, PA.
- 2013-2015 Adjunct Faculty, Chemistry, Community College of Allegheny County (CCAC), Pittsburgh, PA.
- 2013-2014 Senior Research Specialist, Asthma Institute, Med- Div of Pulmonary Medicine, School of Medicine, University of Pittsburgh, PA.

- 2010-2013 Research Instructor, Department of Environmental and Occupational Health, GSPH, University of Pittsburgh, Pittsburgh, PA.
- 2008-2010 Visiting Research Associate, Department of Environmental and Occupational Health, GSPH, University of Pittsburgh, Pittsburgh, PA.
- 1999-2004 Research Associate. Department of Biological Chemistry. School of Chemical Sciences. National University of Cordoba. Argentina.
- 1999-2004 Associate Dean. School of Chemical Sciences. National University of Cordoba. Argentina.
- 1996-1998 Visiting Professor - Courses of General Chemistry – School of Medicine, La Rioja National University. Argentina.
- 1994-1996 Doctoral Fellow. National Council for Scientific and Technical Research of Argentine. (CONICET), Argentina.
- 1991-1994 Doctoral Fellow. Council for Scientific and Technology Research of Cordoba. Argentina (CONICOR), Argentina.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- 2015- American Thoracic Society (ATS)
- 2019- Lung Epithelial Group (University of Colorado, Anschutz Medical Campus)

HONORS AND AWARDS:

- Annual Prize to Scientific Research, School of Medicine. National University of Cordoba. Argentina. 1994.
- Small Research Project-Award, PRIDE program-National Institute of Health, November 2019.
- Top Cited paper with Antioxidants and Redox Signaling, 2020
- Review Editor on the Editorial Board of Respiratory Pharmacology (specialty section of Frontiers in Pharmacology), December 2022.

REVIEW AND REFEREE WORK

- 1-Antioxidants and Redox Signaling.
- 2- Asthma Research and Practice.
- 3- Current Cancer Therapy Reviews
- 4- Oxidative Medicine and Cellular Longevity
- 5- Clinical and Experimental Medicine.

Reviewer and Judge, abstract for The Society for Free Radical Biology and Medicine, November 2013.

Facilitator for a Thematic Poster. “ASTHMA TRANSLATIONAL STUDIES” at American Thoracic Society (ATS) 2020 in Philadelphia.

Judge at Oral Presentations of Graduate Experiences for Multicultural Students (GEMS) 2023, August 2023. Anschutz Medical Campus.

TEACHING RECORD:

- 1987-1989 Teaching Instructor of Biological Chemistry. School of Dentistry. Cordoba National University Argentina.

1990-1999 Teaching Instructor of Biological Chemistry. School of Medicine. Cordoba National University Argentina.

1990-1999 Teacher - Summer Courses of General Chemistry. College of Chemical-Sciences. Córdoba National University, Argentina.

1997-2001 Teaching Instructor of Chemistry. Department of Industrial and Applied Chemistry. Cordoba National University. Argentina.

1999-2004 Teaching Instructor of Biophysical Chemistry. Department of Biological Chemistry. School of Chemical Sciences. Cordoba National University. Argentina.

- Workshops of Chemistry for High School Teachers, National University of Cordoba, Argentina, 2000.
- 2013-2015 Adjunct Faculty, Chemistry, Community College of Allegheny County, (CCAC), Pittsburgh, Pennsylvania.
- Mentoring and service in the CU Anschutz NRSA Fellowship Workshop and Mock Study Section. January, 2025
- Workshop Anschutz Medical Campus: Learning How to Teach, summer 2025.

Handbooks Chapters:

Chapter 1: “Construction of Scientific Understanding”, in Introduction for Study of Chemical Sciences; School of Chemistry, Cordoba National University, Argentina, 1994

Chapter 16 “Chemistry History”, in Introduction for study of Chemical Sciences; School of Chemistry, Cordoba National University, Argentina, 1994.

Chapter 10: “Atom Structure and Periodic Table”, in Introduction for Study of Chemical Sciences; School of Chemistry, National University of Cordoba, Argentina, 1995.

Trainees and mentees:

1- Lillian Friefeld, she was learning protein quantification-identification technics and how to culture human airways epithelial cells on AirLiquid-Interface culture. Lillian has been accepted at the School of Medicine, University of California, and Santa Barbara.

2- Anthony Monzon, Anthony was at the Post-Baccalaureate program, a bridge to MD program at Anschutz Medical Campus. He was working on a pollution, exposing human airways epithelial cells (ALI cultures) to 2.5 PM and analyzed its consequences on the expression of the anti-oxidant mitochondrial protein "paraoxonase 2". Mentored Scholarly Activity (MSA) at the School of Medicine, University of Colorado.

3- Tumim Yifru, she was a GEMS (Graduate Experience for Multicultural Students) student at the University of Colorado, Anschutz Medical Campus. The main objective of Tumim's project was to determine if Interleukin-13 was capable of altered expression of DDAH and PRMT-1 in human bronchial epithelial cells (BEAS-2B) and promotes intracellular ADMA accumulation. The results

obtained from this project have been accepted to be presented at the ATS meeting, Philadelphia 2020.

4- Andi Hudler, MD, she is working actively on role of succinate in inflammation in obese patients with asthma. Dr Hudler got the first place oral presentation, Basic Science Division at 18th Annual Respiratory Disease Young Investigator's Forum, October 2022.

GRANT SUPPORT.

Ongoing Research Support

(RO1HL146542 (Holguin/Que) 07/01/19-06/30/2024

SANDIA: Supplementing L-citrulline to phenotypes to increase airway L-arginine /ADMA ratio and Improve Asthma control

The main goal of this study is finding alternative treatment for obese asthma patients by performing a proof of concept human interventional trial using a double blind placebo-controlled cross-over design in late onset obese asthmatics to determine if L-citrulline supplementation (vs. placebo) increases the airway L-arginine/ADMA balance and improves NO bioavailability and asthma control.

Role: Co-Investigator

R61 HL157069-01A1 (Holguin/Freeman) 01/01/2022-12/31/2026

LIMA: Lipid anti-Inflammatory Mediators in Asthma to reduce airway hyperresponsiveness in obese asthmatics. This is a cross over, randomized clinical trial of obese asthmatics, treated with CLX-10 (nitrated FA) to improve asthma control and reduce bronchial hyperresponsiveness.

Role: Co-Investigator

R01 HL129198 (Federman/ Holguin/ Wisnivesky) 05/01/16 – 04/30/2021

Obesity and Asthma: Unveiling Metabolic and Behavioral Pathways

Major advances in care of people with multiple chronic medical conditions, such as obesity and asthma, will occur through strategies that consider how comorbidities interact on all these levels. Our goal is to move toward this end by examining the interaction of biology and behavior among obese asthmatics and ultimately improve their care.

Role: Co-Investigator

(NIH/NHLBI, R25HL146166) 11/1/2019 – 10/31/2020 (Trainee: Winnica)

PRIDE Academy: Impact of Ancestry and Gender on omics of lung diseases

The goal is to create a workforce of pulmonary researchers who are as diverse as the community they serve through a summer academy. Scholars will be introduced to state-of-the-art approaches and methodology to study the impact of ancestry and gender on lung diseases such as emphysema, asthma and pulmonary hypertension and will perform a small research project.

Role: PI

NHI/NHLBIR01 AI152504 (Wei/Holguin) 06/19/2020-08/31/2025

Parkin in mitochondrial dysfunction and airway inflammation of the obese asthma.

Role: Co-Investigator

PR203496 Holguin/Rose (PI) 02/01/21 – 02/01/26

Study to improve dDeployment related Asthma by using L-citrulline Supplementation (**SEALS**)

Role: Co-Investigator

BIBLIOGRAPHY:

Book chapters:

Chapter 19: “Asymmetric Dimethylarginine”, **Daniel E Winnica**, Jeremy A. Scott, Hartmut Grasemann, Fernando Holguin, “Nitric Oxide: Biology and Pathobiology, Third Edition”, Edited by: Louis J. Ignarro and Bruce A. Freeman, 2017.

Publications (Peer-reviewed Journals):

1- Flavonoid Quercetin Enhances Nuclear factor erythroid 2-related factor 2 (Nrf2) Pathway Activation and Reduces Inflammatory Cytokines in Asthmatic Airway Epithelial cells. **Daniel Efrain Winnica**, Stephanie Dawrs, Shuyu Ye, Christopher Mancuso, Fernando Holguin. International Archives of Allergy and Immunology, August, 2025 *in press*.

2- Impact of Insulin Concentrations and Insulin Resistance on Lung Function and Morbidity in Asthma. Alexandra Fuher MD, Meghan D. Althoff MD, PhD, Alex Federman, Juan P. Wisnivesky MD, PhD, **Daniel Winnica PhD**, Sunita Sharma MD, MPH, Max Seibold PhD, Hong Wei Chu PhD, Serjeks Berdnikovs PhD, Jamie Everman PhD, Chris Evans PhD, Eszter Vladar PhD, Ryan Peterson PhD, Fernando Holguin MD, MPH; CHEST Pulmonary, Available online 26 April 2025, 100174

3- Epigenomic response to albuterol treatment in asthma-relevant airway epithelial cells Javier Perez-Garcia, Maria Pino-Yanes, Elizabeth G Plender, Jamie L Everman, Celeste Eng, Nathan D Jackson, Camille M Moore, Kenneth B Beckman, Vivian Medina, Sunita Sharma, **Daniel Efrain Winnica**, Fernando Holguin, José Rodríguez-Santana, Jesús Villar, Elad Ziv, Max A Seibold, Esteban G Burchard. Clin Epigenetics. 2023 Oct 3;15(1):156

4- High-fat diet and palmitic acid amplify airway type 2 inflammation. Kris Genelyn Dimasuay, Bruce Berg, Niccolette Schaunaman, Fernando Holguin, **Daniel Winnica**, Hong Wei Chu. *Front. Allergy*, 23 May 2023 *Sec. Asthma. Volume 4 – 2023*.

5- Airway epithelial Paraoxonase-2 in obese asthma. **Daniel Efrain Winnica**, Anthony Monzon, Shuyu Ye, Eszter K Vladar, Maxwell Saal, Riley Cooney, Cuining Liu, Sunita Sharma, Fernando Holguin. *PLoS One*. 2022 Mar 14;17(3):e0261504. doi: 10.1371/journal.pone.0261504

6- The Precision Interventions for Severe and/or Exacerbation-Prone (PrecISE) Asthma Network: An overview of Network organization, procedures, and interventions. PrecISE Study Team, J. *Allergy Clin Immunol*. 2022 Feb, PMID: 35934682.

7- L-Citrulline as Add-On Therapy to Increase Exhaled Nitric Oxide and Improve Lung Function and Asthma Control in Obese Asthmatics. F. Holguin, S. Sharma, **D.E. Winnica**, K. Wasil, V.L. Smith, M.H. Cruse, N. Perez, T.J. Scialla, E. Coleman, H. Grasemann, L.G. Que. *JCI Insight*. 2019 Nov 12. pii: 131733. doi: 10.1172/jci.insight

8- Bioenergetic Differences in the Airway Epithelium of Lean versus Obese Asthmatics are driven by NO and Reflected in Circulating Platelets. **Winnica D**, Corey C, Mullett 3, Reynolds M, Hill G, Wendell S, Que L, Holguin F, Shiva S. *Antioxid Redox Signal*. 2019 Jan 4. doi: 10.1089/ars.2018.7627.

9- L-citrulline prevents Asymmetric Dimethylarginine-Mediated reductions in Nitric Oxide and Nitrosative Stress In Primary Human Airway Epithelial Cells. **Winnica D**, Que LG, Baffi C, Grasemann H, Fiedler K, Yang Z, Etling E, Wasil K, Wenzel S, Freeman B and Holguin F.

Clin Exp Allergy. 2017 Feb;47(2):190-199.

- 10- Metabolic Syndrome and the Lung. Bafi C, Wood L, **Winnica D**, Strollo P, Gladwin M, Que L and Holguin F. *Chest*. 2016 Jun, 149(6):1525-34. doi: 10.1016/j.chest.2015.12.034.
- 11- Asthma and obesity: mechanisms and clinical implications. Bafi C, **Winnica D** and Holguin F. *Asthma Res Pract*. 2015 Jun 4;1:1. doi: 10.1186/s40733-015-0001-7
- 12- LC/MS analysis of cardiolipins in substantia nigra and plasma of rotenone-treated rats: Implication for mitochondrial dysfunction in Parkinson's disease. Tyurina YY, Polimova AM, Maciel E, Tyurin VA, Kapralova VI, **Winnica DE**, Vikulina AS, Domingues MR, McCoy J, Sanders LH, Bayir H, Greenamyre JT, Kagan VE. *Free Radical Research*. 2015 Mar 5:1-11.
- 13- TNFR1/Phox Interaction and TNFR1 Mitochondrial Translocation Thwarts Silica-Induced Pulmonary Fibrosis. FabrizioFazzi, Joel Njah, Michelangelo Di Giuseppe, **Daniel E. Winnica**, Kristina Go, Ernest Sala, Claudette M. St Croix, Simon C. Watkins, Vladimir A. Tyurin, Donald G. Phinney, Cheryl L. Fattman, George D. Leikauf, Valerian E. Kagan, and Luis A. Ortiz. *Journal of Immunology*. 2014 Apr 15;192(8):3837-46
- 14- Oxidatively-Modified Phosphatidylserines on the surface of apoptotic cells are essential phagocytic “eat-me” signals-cleavage and inhibition of phagocytosis by LPLA2. Vladimir A. Tyurin , KrishnakumarBalasubramania, **Daniel Winnica**, Yulia Y. Tyurina, Anna S. Vikulina, Alexander A. Kapralov, Colin H.Macphee, and Valerian E. Kagan. *Cell Death Differ*. 2014 May;21(5):825-35. doi: 10.1038/cdd.2014.1.
- 15- LC/MS characterization of rotenone induced cardiolipin oxidation in human lymphocytes: Implications for mitochondrial dysfunction associated with Parkinson’s disease. Tyurina YY. **Winnica DE**, Kapralova V,Kapralov AA,TyurinVA and Kagan VE. *Mol Nutr Food Res*. 2013 Aug;57(8):1410-22. doi: 10.1002/mnfr.201200801.
- 16- Adsorption of Surfactant Lipids by Single-Walled Carbon Nanotubes in Mouse Lung upon Pharyngeal Aspiration. Kapralov AA, FengWH,Amoscato AA, Yanamala, N,BalasubramanianK, **Winnica DE**, Kisin ER, Gou, GP. KP,SparveroLJ, RayP. MallampalliRK, Klein-SeetharamanJ, FadeelB,ShvedovaAA, and. KaganVE. *ACS Nano*. 2012 May 22;6(5):4147-56. doi: 10.1021/nn300626q.
- 17- Covalent Modifications of Hemoglobin by Nitrite Anion: Formation Kinetics and Properties of Nitrihemoglobin. OtsukaM, MarksSA, **WinnicaDE**, AmoscatoAA, Pearce LL and Peterson.J *Chem. Res. Toxicol*. 2010, 23, 1786-1795.
- 18- The Resistance of Electron Transport Chain Fe-S Clusters to Oxidative Damage during the Reaction of Peroxynitrite with mitochondrial Complex II and Rat Heart pericardium. Pearce LL, Martinez-Bosch S, Lopez Manzano E, **Winnica DE**. Epperly M and Peterson J *Nitric Oxide*. 2009 May;20(3):135-42.
- 19- Cardiolipin switch in mitochondria: Shutting off the reduction of cytochrome c and turning on the peroxidase activity. BasovaLV, Kurnikov IV, Wang L, Ritov VB,Belikova NA, VlasovaII,PachecoAA, **Winnica DE**, Peterson J, Bayir H, Waldeck D and Kagan VE. *BiochemistryVol:46 (11),: 3423-3434; 2007*.
- 20- Trypsin/Acrosin inhibitor activity of a rat and guinea pig proteins. Structural and functional studies. **Winnica DE**, Novella ML, Dematteis A and Coronel CE. *Biology of Reproduction vol.63*,

pp 4248, 2000.

- 21- Isolation and Characterization of 54 kDa precursor of caltrin, the calcium transport inhibitor protein from seminal vesicles of the rat. Coronel CE, Novella ML, **Winnica DE** and Lardy HA. *Biology of Reproduction* 48, 1326-1333, 1993.
- 22- Purification Structure and characterization of caltrin proteins from seminal vesicle of the rat and mouse. Coronel CE, **Winnica DE**, Novella ML and Lardy HA. *Journal of Biological Chemistry* 267, pp 20909-20915; 1992.

Scientific Abstracts:

- 1- Flavonoid Quercetin Enhances Nuclear Factor Erythroid 2-related factor 2 (Nrf2) Pathway Activation and Reduces Inflammatory Cytokines in Asthmatic Airway Epithelial cells. **Daniel Winnica, PhD**; Stephanie Dawrs, BS, Christopher Mancuso, PhD; Shuyu Ye, PhD, and Fernando Holguin, MD, MPH. University of Colorado, Aurora, CO, United States. ATS International Conference, May 16-21, 2025, San Francisco, CA.
- 2- Reduced Ratio of Biopterin Metabolites: Another Source of Nitric Oxide Synthase (NOS) Uncoupling in Asthma. Stephanie Dawrs, Ariane Lee, Meghan Althoff, **Daniel Winnica**, Mark Sippel, Sunita Sharma, Fernando Holguin, MPH. ATS International Conference, May 16-21, 2025, San Francisco, CA.
- 3- Succinate Receptor 1 (SUCNR1) Expression in Airway Epithelial Cells. **D. E. Winnica**, S. Dawrs, C. Mancuso, S. Ye, F. L. Holguin; University of Colorado, Aurora, CO, United States. ATS International Conference, May 17-22, 2024, San Diego, CA.
- 4- Metabolic Reprogramming of Human Airways Epithelial Cells from Asthmatics subjects. **Daniel Winnica, PhD**; Andi Hudler MD and Fernando Holguin, MD, MPH. Department of Medicine's Annual Research Day on April 18th, 2023.
- 5- Effect of Succinate Accumulation on GPR91 and HIF-1 α Expression in Airway Epithelial Cells. Andi Hudler, MD1; **Daniel Winnica**, PhD; Sunita Sharma, MD, MPH; Reynold A. Panettieri, Jr, MD; Joseph Jude, BVSc, PhD; Tumim Yifru, MS; Fernando Holguin, MD, MPH. University of Colorado, Division of Pulmonary Sciences and Critical Care Medicine and Rutgers, The State University of New Jersey, Institute for Translational Medicine and Science. ATS International Conference, May 19-24, 2023, Washington, DC.
- 6- Succinate Induces Parkin Expression in Airway Epithelial Cells. **Daniel Winnica, PhD**, Tumim Yifru, MS, Shuyu Ye, PhD and Fernando Holguin, MD, MPH. University of Colorado, Division of Pulmonary Sciences and Critical Care Medicine. ATS International Conference, May 19-24, 2023 Washington, DC.
- 7- Succinate receptor GPR91 (G Protein-Coupled Receptor 91) modulates excitation-contraction coupling in human airway smooth muscle (HASM). Joseph Jude, Nikhil Karmacharya, **Daniel Winnica**, Emily Wolfe, Joanna Woo, Steven S. An, Fernando Holguin, Reynold Panettieri Jr. University of Colorado, Division of Pulmonary Sciences and Critical Care Medicine and Rutgers, The State University of New Jersey, Institute for Translational Medicine and Science. ATS International Conference, May 19-24, 2023, Washington, DC.
- 8- Quercetin modulate expression of PON2 in HAECs by Inducing expression of nuclear factor (erythroid-derived 2)-like 2 (Nrf2). **Daniel Winnica**, Shuyu Ye, and Fernando Holguin. Division of

- Pulmonary Sciences and Critical Care Medicine, University of Colorado Anschutz Medical Campus. 65th Annual Meeting, Thomas L. Petty Aspen Lung Conference.CO, June 6-9, 2023, Aspen CO.
- 9- Palmitic acid inhibits interferon response during influenza A virus infection. Paige Hartsoe, Kris Genelyn Dimasuay, Fernando Holguin, Niccolette Schaunaman, **Daniel Winnica**, Hong Wei Chu. National Jewish Health, Denver, CO. University of Colorado Anschutz Medical Campus, Aurora, 65th Annual Meeting, Thomas L. Petty Aspen Lung Conference.CO, June 6-9, 2023, Aspen CO.
- 10- Quercetin modulate expression of paraoxonase 2 in human airways epithelial cells by inducing expression of nuclear factor like 2 (Nfr2). **Daniel Winnica**, Shuyu Ye, and Fernando Holguin. Division of Pulmonary Sciences and Critical Care Medicine, University of Colorado Anschutz Medical Campus. ERS 2023 International Congress in Milan (09-13 September 2023).
- 11- Succinate accumulation induces HIF-1 α expression in airway epithelial cells. Andi Hudler, Shuyu Ye, Fernando Holguin and **Daniel Winnica**. Pulmonary Science and Critical Care, University of Colorado. *American Journal of Respiratory and Critical Care Medicine* 2022.
- 12- Restoration of Nitric Oxide Bioavailability Decreases Parkin Expression in Airway Epithelial Cells. Tumim Yifru,MS, Tyler Matlock, MS, Shuyu Ye PhD, Fernando Holguin, MD, MPH and **Daniel Winnica, PhD**. Division of Pulmonary Sciences and Critical Care Medicine *American Journal of Respiratory and Critical Care Medicine* 2022.
- 13- Airway Epithelial Paraoxonase 2 in Obese Asthma. **Daniel Winnica**, Anthony Monzon, Shuyu Ye, Eszter Vladar, Maxwell Saal, Riley Conney and Fernando Holguin. Division of Pulmonary Sciences and Critical Care Medicine. *American Journal of Respiratory and Critical Care Medicine* 2022.
- 14- Interleukin-13 Promotes Changes In The Metabolism Of Asymmetric Dimethylarginine. **Daniel Winnica**, Tumim Yifru and Fernando Holguin. Pulmonary Science and Critical Care, University of Colorado. Pulmonary, Allergy and Critical Care Medicine. *American Journal of Respiratory and Critical Care Medicine* 2020. A7409.
- 15- Up-regulation of Paraoxonase 2 in Human Bronchial Epithelial Cells. **Daniel Winnica**, Sunita Sharma, Loretta Que, Shuyu Ye, Vong Smith, Cruse Margaret, Nancy Perez and Fernando Holguin. Pulmonary Science and Critical Care, University of Colorado. Pulmonary, Allergy and Critical Care Medicine, Duke University, USA. *American Journal of Respiratory and Critical Care Medicine* 2019;199:A3829.
- 16- Parkin Deficiency Enhances Mitochondrial DNA Release Promotes Airway Inflammation. K.G. Dimasuay ,**D.E. Winnica**, F. Holguin, R. Gottlieb, H.W. Chu. National Jewish Health, Denver, Colorado; Pulmonary Science and Critical Care, University of Colorado; Cedar Sinai, Los Angeles, CA. *American Journal of Respiratory and Critical Care Medicine* 2019;199:A3809.
- 17- L-Citrulline as Add-On Therapy to Increase Exhaled Nitric Oxide and Improve Lung Function and Asthma Control in Obese Asthmatics. F. Holguin, S. Sharma, **D.E. Winnica**, K. Wasil, V.L. Smith, M.H. Cruse, N. Perez, T.J. Scialla, E. Coleman, H. Grasemann, L.G. Que. *American Journal of Respiratory and Critical Care Medicine* 2019;199:A7088.
- 18- Up-regulation of paraoxonase 2 in human bronchial epithelial cells. **D. Winnica**, S. Sharma, L. Que, S. Ye, V. Smith, C. Margaret, N. Perez, F. Holguin. Pulmonary Science and Critical Care, University of Colorado. Pulmonary, Allergy and Critical Care Medicine, Duke University, USA. ERS 2019 International Congress in Madrid (02 October 2019).

- 19- Platelet and Airway Epithelium Bioenergetics Are Different in Obese Versus Lean asthmatics **D. E. Winnica**, C. Corey, L. G. Que, F. Holguin, S. Shiva, *Am J Respir Crit Care Med* 2018;197:A7595.
- 20- Upregulation of Paraoxonase 1 (PON1) in Severe Asthma. F. Holguin, C. Liu, S.A.A. Comhair, S. Hazen, E.R. Bleeker, W.W. Busse, W.J. Calhoun, M. Castro, A.M. Fitzpatrick, B.M. Gaston, N.N. Jarjour, E. Israel, K.F. Chung, S.C. Erzurum, S.E. Wenzel, W.G. Teague, S. Sharma, K. Kechris, **D.E. Winnica**, L.G. Que. *American Journal of Respiratory and Critical Care Medicine* 2018;197: A2497
- 21- Characterization of Paraoxonases in Mice with Obese Allergic Asthma”. Yang Z, Dely J, **Winnica D**, Holguin F, MacQuade V, Ingram JL, Tighe RM and Que L. *American Journal of Respiratory and Critical Care Medicine* 2018;197: A1303.
- 22- Evaluation of Paraoxonase 2 (PON 2) in Human Bronchial Epithelial Cells (HBEC). **Winnica D**, Que L, Ingram J, McQuade V and Holguin F. Pulmonary Science and Critical Care, University of Colorado, Colorado. Pulmonary, Allergy and Critical Care Medicine, Duke University, North Caroline. *American Thoracic Society International Conference, Washington DC, May 2017*.
- 23- L-citrulline prevents Asymmetric Dimethylarginine-Mediated reductions in Nitric Oxide and Nitrosative Stress In Primary Human Airway Epithelial Cells". **Winnica D**, Fiedler K, Etling E, Que L, Grasseman H, Freeman B, Wasil K, Wenzel S and Holguin F. *American Thoracic Society International Conference, San Francisco, California, May 2016*.
- 24- Ultrastructural Changes And Mitochondrial Dysfunction In Primary Human Airway Epithelial Cells (HBECs) From Subjects With Asthma. **Winnica D**, Bueno M, Sullivan M, Corey C, Mora A, Stolz D, Shiva S, and Holguin F. *American Thoracic Society International Conference, San Francisco, California, May 2016*.
- 25- L-citrulline supplementation restores NOx production on primary human airway epithelial cells (HBEC) exposed to asymmetric di-methyl arginine (ADMA). **Winnica DE**, Baffi CW, Wenzel SE and Holguin F. *American Thoracic Society International Conference, Denver, Colorado, May 2015*.
- 26- Effect of Asymmetric Dimethylarginine (ADMA) and Leptin in Human Bronchial Epithelial Cells (HBECs): Mechanisms of Disease in Obese Asthmatics. CW Baffi, **DE Winnica**, SE Wenzel, F Holguin. Asthma Institute, Division of Pulmonary, Allergy and Critical Care Medicine, University of Pittsburgh, School of Medicine, PA. *American Thoracic Society International Conference, Denver, Colorado, May 2015*
- 27- The effect of L-arginine and L-citrulline on NOx production in primary human airway epithelial cells exposed to asymmetric dimethylarginine (ADMA). **DE Winnica**, CW Baffi, SE Wenzel, F Holguin. Asthma Institute, Division of Pulmonary, Allergy and Critical Care Medicine, University of Pittsburgh, School of Medicine, PA. *Nitric Oxide-Nitrite/Nitrate Conference; June 2014, Cleveland USA*
- 28- Cardiolipin As a Biomarker of Mitochondrial Dysfunction Associated with Parkinson’s Disease. Tyurina Y, **Winnica D**, Kapralova V, Tyurin V, and. Kagan V. Department of Environmental and Occupational Health, University of Pittsburgh, PA. *Annual Meeting of the Society of Toxicology, March, 2013*.

- 29- Mesenchymal Stem Cells extrude mitochondria and shuttle micro RNAs to modulate macrophages in lung fibrosis. OrtizLA, Di GiuseppeM, **Winnica DE**, NjahJ, KaminskiN, SalaE, Phinney D University of Pittsburgh - Pittsburgh, PA/US, University of Pittsburgh. *American Thoracic Society International Conference, Philadelphia, May 2013.*
- 30- Rotenone-induced oxidized molecular species of cardiolipin in human lymphocytes: can they be used as biomarkers of mitochondrial dysfunction associated with Parkinson's disease? Amoscato AA, **Winnica DE**, Kapralova V, Feng W, Kagan VE, Tyurina YY . *Annual Meeting of the Society of Toxicology, March , 2012.*
- 31- Role of oxygenated phosphatidylserine and its metabolites - Lyso-phosphatidylserines. Produced after oxidation and hydrolysis by plasma lipoprotein-associated phospholipase A₂ in clearance of apoptotic cells by macrophages: LC-ESI-MS STUDY. Kagan VE, Tyurin VA, Balasubramanian K, **Winnica DE**, TyurinaYY and. Macphee CH, *Annual Meeting of the Society of Toxicology, March , 2012*
- 32- The Mesenchymal Stem Cell (msc) Secretome Involves Mitochondrial Transfer. Ortiz LA, Winnica DE, Fazzi F, Di Giuseppe M, Sala E, St. CroixC., WatkinsS, PhinneyD. *Am J RespirCrit Care Med* 183;2011:A3768.
- 33- Phospholipid Oxidative Metabolism During Macrophage Response To Environmental Agents. Tyurin VA, **Winnica DE**, Fazzi F, Feng WH, Tyurina YY, Stewart NA, Kisin ER, Murray AR, Shvedova AA, Pitt BR, Kagan VE, Ortiz LA. *The 49th Annual Meeting of the Society of Toxicology, March 7-11, 2010. Salt Lake City. Utah.*
- 34- Regulation of Macrophage Biology by Mesenchymal Stem Cells (MSC) Involve Mitochondrial Transfer. OrtizLA, **Winnica DE**, Di GiuseppeM, FazziF, SalaE, St. CroixC, WatkinsS, PhinneyD. *Am J RespirCrit Care Med* 181;2010:A5281
- 35- Strategy for suppression of post-irradiation mitochondrial superoxide production using derivatives of a Complex III inhibitor. Pearce LL, Ungerman EA, **Winnica DE**, Epperly MW, Peterson J. *Meeting of Radiation Research Society, September 2008, Boston, MA.*
- 36- Functional studies of nitrihemoglobin. Otsuka M, **Winnica DE**, Pearce LL and Peterson J. *Free Radical Biology and Medicine. Volume: 43, S25-S25; 2007*
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Doctoral Thesis

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