

Yasmine F. Ibrahim

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EDUCATION

**Georgetown University
Medical Center**

Washington, DC, USA

Doctor of Philosophy in Pharmacology

January, 2015

Dissertation: "The role of cancer chemotherapeutic agents in Treatment of pulmonary arterial hypertension"

Cumulative GPA: 4.0

Minia University

Faculty of Medicine

Minia, Egypt

Master in Science in Pharmacology

July, 2009

Thesis: "Possible protective effect of telmisartan versus captopril on doxorubicin-Induced cardiac toxicity and nephrotoxicity In rats".

Cumulative GPA: 3.7

Minia University

Faculty of Medicine

Minia, Egypt

Bachelor in medicine and surgery, MCCH/ (M.D.)

December, 2002

Cumulative GPA: 3:0

PROFESSIONAL EXPERIENCE

2015-present

Assistant professor

Department of pharmacology.

Faculty of medicine, Minia University, Egypt.

2010-2015

Ph.D. student

Department of Pharmacology and Physiology

Georgetown University, Washington DC, USA

Descriptions of Ph.D. Thesis: I investigated the role of cancer chemotherapeutic agents in the treatment of pulmonary arterial hypertension (PAH). I found that cancer chemotherapeutic agents (proteasome inhibitors and daunorubicin) reversed pulmonary vascular remodeling in rats with PAH in chronic hypoxia as well as hypoxia/SU5416 models. These drugs also promoted apoptotic and autophagic cell death of vascular cells in the remodeled vessels, but not in normal vessels. I have provided evidence for the role of parkin in defining specificity of autophagic killing of remodeled vascular cells. The reversal of pulmonary vascular remodeling increased the capacity of vasodilators to reduce pulmonary arterial pressure without adversely affecting the hypertrophied right ventricle.

2002- 2009

Master's Student

Lecturer (Faculty of Medicine)

Department of Pharmacology, Minia University, Minia, Egypt.

Descriptions of Master Thesis: I investigated the effects of an angiotensin receptor blocker, telmisartan, and an angiotensin converting enzyme inhibitor, captopril, on protecting against cardio- and nephro-toxicity induced by a cytotoxic agent, doxorubicin, in rats. I measured cardiac creatine phosphokinase and lactic dehydrogenase levels as well as blood urea, creatinine and triglycerides were evaluated. In addition, oxidative stress parameters such as malondialdehyde, glutathione, nitric oxide and Ca^{2+} levels were also monitored in the heart. I found significant amelioration of

doxorubicin-induced cardio- and nephro-toxicity by captopril and telmisartan by reducing oxidative stress.

HONORS AND AWARDS

Pre-Doctoral Fellowship, Egyptian government (2010-2014)

International publication's award, at the "science day event" 2017. Minia University.

International publication's award, at the "science day event" 2018. Minia University.

Best speaker in Annual Egyptian Society of Pharmacology & Experimental Therapeutics (ESPET) Conference (2019).

Post-Doctoral Fellowship, Egyptian government (2019-2020)

PUBLICATIONS

1. Ibrahim MA, Ashour OM, **Ibrahim YF**, EL-Bitar HI, Gomaa W, Abdel-Rahim SR. Angiotensin-converting enzyme inhibition and angiotensin AT1-receptor antagonism equally improve doxorubicin-induced cardiotoxicity and nephrotoxicity. *Pharmacological Research*. 60: 373-381, 2009.
2. Vincent DT, **Ibrahim YF**, Espey MG, Suzuki YJ. The role of antioxidants in the era of cardio-oncology. *Cancer Chemotherapy and Pharmacology*. 72: 1157-1168, 2013.
3. **Ibrahim YF**, Wong CM, Pavlickova L, Liu L, Trasar L, Bansal G, Suzuki YJ. Mechanism of the susceptibility of remodeled pulmonary vessels to drug-induced cell killing. *Journal of the American Heart Association* 3: e000520, 2014.
4. Wang X, **Ibrahim YF**, Das D, Edmondson MZ, Shults NV, Suzuki YJ. Carfilzomib reverses pulmonary arterial hypertension. *Cardiovasc Res* 2016 May 6;110(2):188-99.
5. Geddawy A, **Ibrahim YF**, Elbahie NB, and Ibrahim MA. Direct Acting Anti-hepatitis C Virus Drugs: Clinical Pharmacology and Future Direction. *J Transl Int Med*. 2017 Mar; 5(1): 8–17
6. Rybka V, Shults NV, **Ibrahim YF**, and Suzuki YJ. Resolution of Right Ventricular Fibrosis by a Cancer Chemotherapeutic Agent: A Novel Therapy to Treat Pulmonary Arterial Hypertension. *FASEB journal*. April 1, 2017
7. **Ibrahim YF**, Shults NV, Rybka V, Suzuki YJ. Docetaxel Reverses Pulmonary Vascular Remodeling by Decreasing Autophagy and Resolves Right Ventricular Fibrosis. *J Pharmacol Exp Ther* 2017 Oct 31;363(1):20-34
8. **Ibrahim YF**., Moussa RA., Asmaa M.A. Bayoumi AMA, Ahmed AF. Tocilizumab attenuates acute lung and kidney injuries and improves survival in a rat model of sepsis via down-regulation of NF- κ B/JNK: a possible role of P-glycoprotein. *Inflammapharmacology*. 2019. doi.org/10.1007/s10787-019-00628-y

ABSTRACTS AND CONFERENCE PRESENTATIONS

1. Ibrahim MA, Ashour OM, **Ibrahim YF**, EL-Bitar HI, Gomaa W, Abdel-Rahim SR. Telmisartan versus captopril in doxorubicin-induced cardiotoxicity and nephrotoxicity. Presented at the 32nd Ain Shams International Medical Congress, Faculty of Medicine, Ain Shams University, Cairo, Egypt, 2009.

2. **Ibrahim YF**, Wong CM, Suzuki YJ. Promotion of autophagic signal by a cancer chemotherapeutic agent as a protective mechanism against pulmonary hypertension. Presented at the International Conference of the American Thoracic Society, San Francisco, CA, 2012. (Selected to present at a poster discussion session)
3. **Ibrahim YF**, Wong CM, Suzuki YJ. Roles of parkin and autophagy in increased susceptibility of remodeled pulmonary vessels to undergo cell death in response to cancer chemotherapeutic agents. Presented at the International Conference of the American Thoracic Society, Philadelphia, PA, 2013. (Selected to present at a poster discussion session)
4. **Ibrahim YF**, Suzuki YJ. Reversal of Pulmonary Arterial Hypertension by a Taxane Anti-Tumor Drug. Presented at the International Conference of the American Thoracic Society, San Francisco, CA, 2016. (Selected to present at a poster presentation session)
5. Shults NV, **Ibrahim YF**, Rybka V, Suzuki YJ. Reversal of Right Ventricular Fibrosis in Pulmonary Arterial Hypertension. Presented at the International Conference of the American Thoracic Society, San Francisco, Washington DC 2017. (Selected to present at a poster presentation session)
6. **Ibrahim YF**, Moussa RA., Bayoumi AMA, Ahmed AF. Tocilizumab, an IL-6 receptor inhibitor, attenuates acute lung injury and improves survival in a rat model of severe sepsis, via downregulating of NF- κ B and the upregulation of P-glycoprotein. 58th Annual Egyptian Society of Pharmacology & Experimental Therapeutics (ESPET) Conference. (Cairo, Egypt), 2019. (Selected to present as an oral presentation session)
7. **Ibrahim YF**, Toni NDM. Diacerein, an IL-1 β receptor inhibitor, is as effective as metformin in reversing metabolic and reproductive disturbances in letrozole induced polycystic ovarian syndrome in rats. The 1st African Health Summit, Egypt international exhibition and convention center (Cairo, Egypt), 2019. (Selected to present as poster presentation session)

EXPERIMENTAL TECHNIQUES

Cell/molecular Biological Techniques: Cell culture; siRNA knockdown of genes; adenovirus-mediated gene transfer; RNA isolation; RT-PCR.

Biochemical Techniques: 1D electrophoresis; Western blotting; immunoprecipitation; cell viability assays; biochemical assays (detection of blood urea, creatinine, triglycerides, malondialdehyde, glutathione, nitric oxide).

Biophysical Techniques: Fluorescence calcium imaging.

Handling of Experimental Animals: Handling of rats and mice; intraperitoneal injection; subcutaneous injection; oral gavage; dissection and isolation of the first and second order branches of the rat pulmonary arteries and homogenization; dissection and separation of cardiac chambers and various rat organs and homogenization; rat jugular vein cannulation; the use of a ventilator in rats; rat right ventricular catheterization using a Millar catheter; blood pressure recording, establishing a septic model of cecal ligation and puncture in rats.

Software skills: determination of % of pulmonary artery thickness by using IP Lab Software; recording and analyzing right ventricular pressure signals using Power Lab with Chart 5 software; Image J software for densitometry; GraphPad Prism statistics package.

TEACHING EXPERIENCE

2002-2010. Teaching Assistant in Faculty of Medicine, Department of Pharmacology, Minia University, Minia, Egypt (Clinical Pharmacology for undergraduate and graduate students; Assisting Pharmacology Laboratory courses).

2015-2018. Teaching (as an assistant professor) in Faculty of Medicine, Department of Pharmacology, Minia University, Minia, Egypt (Systemic and advanced pharmacology teaching for undergraduate and graduate students).

ACADEMIC EXPERIENCE AND PARTICIPATION

2015-2018 Faculty and department coordinator of International accreditation and quality assurance program
2017-present Faculty coordinator of USAID program for traveling to the United States.
2018-present Minia University coordinator of USAID program for traveling to the United States.
2018-present Block coordinator in the integrated medicine program in Faculty of medicine, Minia University

REFERENCE

Dr. Yuichiro Justin Suzuki, Ph.D.

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All transcripts and certificates are available upon request

