

AHMAD USAMA, M.Sc.

Biomedical Researcher

PERSONAL INFORMATION:

Address: Molecular Cell Biology Lab, Department of Zoology, Faculty of Science, Assiut University, 71516 Assiut City, Egypt.

Contact Number (+1) 514-553-8523 (Canada)/ (+20) 10-616-36663 (Egypt)

Email: ahmad.ahmoud2@mail.mcgill.ca & a.usama@aun.edu.eg

EDUCATION:

2017-Present **PhD. in Immunology and cardiovascular diseases,**
McGill University, Canada. (On progress).

Project: “The role of γ/δ (gamma/delta) T cells in angiotensin II induced-hypertension and vascular injury”.

Advisor: **Ernesto L. Schiffrin**, C.M., MD, PhD, FRSC, FRCPC, FACP.

Physician-in-Chief, Sir Mortimer B. Davis-Jewish General Hospital,

Canada Research Chair in Hypertension and Vascular Research, Lady Davis Institute for Medical Research,

Professor and Vice-Chair (Research), Department of Medicine, McGill University.

2012-2014 **M.Sc. in Molecular Oncology, NTHU, Taiwan.**

Dissertation: “The Effect of Over-Expression of Matrix Metalloproteinase-2 (MMP2) on Murine Brain Tumor Growth and its responses against the Cytotoxicity of Ionizing Radiation and Sigma-2 Receptor Agonist PB221 Drug”.

Advisor: C.S.Chiang, Professor and Chairman of the Department of Biomedical Engineering and Environmental Sciences at National Tsing Hua University, Taiwan.

2006-2009 **B.Sc. in Zoology, Assiut University, Egypt. (GPA=4.0, Honor with distinction).**

PROFESSIONAL EXPERIENCE:

2014-Present **Assistant lecturer**, Department of Zoology, Faculty of Science, Assiut University, Assiut City, Egypt.

2011-2014 **Demonstrator**, Department of Zoology, Faculty of Science, Assiut University, Assiut City, Egypt.

RESEARCH INTERESTS:

Cardiovascular remodeling, Immunology, Cancer gene therapy, Radiation Oncology, Immuno-oncology, Neuro-immunology, Molecular Cell Biology, and Diabetes therapy.

RESEARCH EXPERIENCE:

***Practical Skills:**

- Pressurized Myography, Subcutaneous implantation surgery of osmotic mini pump in mice.
- Cell lines culture, Cytotoxicity (MTT) assay, XTT assay, Colony forming assay, Cell invasion assay, Cell migration assay, γ -H2AX assay, Confocal microscopy using, Nucleic acid staining by Propidium Iodide (PI) & Flow cytometry by (FACS).
- Total RNA extraction, RT-PCR, Molecular cloning principles, Western blot (WB), Gelatin Zymography for MMP2 assessment & Agarose gel electrophoresis.

- Mouse models handling, Tumor intracranial (IC) injection, intraperitoneal (I.P.) injection, Intravenous (I.V.) injection, Cryosectioning, H&E staining, Immunohistochemistry (IHC), Immunofluorescence & Fluorescent microscopy handling.

***Technical Skills:**

Microsoft Office 2013, Adobe Photoshop 13.0, GraphPad Prism 5.0, Image-Pro PLUS 7.0, ImageJ 1.49, Cell Profiler 2.1, ModFit LT 3.2 & ZEN 2009 Light.

GRANTS & SCHOLARSHIPS:

- Grad Excellence Award in Experimental Medicine, McGill University, Canada (2017- Present).
- National Tsing Hua University Scholarship, Taiwan (2016-2017).
- National Tsing Hua University Scholarship, Taiwan (2012-2014).

CONFERENCES:

- [1] The 8th **Annual LDI Scientific Retreat**, May 12th, 2017, La Plaza Hotel, Montreal, Quebec, Canada.
- [2] The **Annual McGill Cardiovascular Research Day**, April 27th, 2017, the Research-Institute of the McGill Health Center, Montreal, Quebec, Canada.
- [3] The 17th **Annual McGill Biomedical Graduate Conference (AMBGC)**, March 23rd, 2017, Omni Hotel, Montreal, Quebec, Canada.
- [4] The 11th international conference of the **Asian Clinical Oncology Society** in conjunction with the 19th **Taiwan Joint Cancer Conference**, from 02 to 05 May 2014, TICC, Taipei, Taiwan.
- [5] The First Annual Meeting of the Middle-Eastern Association for Cancer Research (MEACR): **Cancer from Bench to Clinic**, from 27 to 29 December 2011, Tanta University, Tanta, Egypt.

[6] The First International Conference of “**Nanotechnology-based Economy and its Applications**”, from 21 to 23 June 2011, Hilton Dream, Dreamland, 6th October City, Egypt.

[7] The 19th International Conference of **the Egyptian German Society of Zoology**, from 30 April to 02 May 2011, Faculty of Science, Beni-suef University, Beni-Suef, Egypt.

[8] The Third Scientific Conference of **Young Researchers for Basic Sciences and Technology**, from 19 to 20 April 2011, Faculty of Science, Assiut University, Assuit, Egypt.

LIST OF PUBLICATIONS:

[1] Mahmoud, M. H., Badr, G., Badr, B. M., **Kassem, A. U.**, & Mohamed, M. S. (2015). Elevated IFN-alpha/beta levels in a streptozotocin-induced type I diabetic mouse model promote oxidative stress and mediate depletion of spleen-homing CD8⁺ T cells by apoptosis through impaired CCL21/CCR7 axis and IL-7/CD127 signaling. *Cellular signaling*, 27(10), 2110-2119 (**IF= 4.32**).

[2] **Kassem, A.U.** & C.S. Chiang. (2014). The interaction mechanism of sigma-2 (σ_2) agonist, PB221, on brain tumor cells response to irradiation. (conference paper; The 11th international conference of the Asian Clinical Oncology Society in conjunction with the 19th Taiwan Joint Cancer Conference, from 02 to 05 May 2014, TICC, Taipei, Taiwan).

REFERENCES:

1- Prof. Dr. Ernesto L. Schiffrin, C.M., MD, PhD, FRSC, FRCPC, FACP /
(email: ernesto.schiffrin@mcgill.ca).

Physician-in-Chief, Sir Mortimer B. Davis-Jewish General Hospital, Canada Research Chair in Hypertension and Vascular Research, Lady Davis Institute for Medical Research & Professor and Vice-Chair (Research), Department of Medicine, McGill University, Canada.

Telephone: +1 514-340-7538 / Fax: +1 514-340-7539

2- Dr. Pierre Paradis, PhD. / (email: pierre.paradis@mcgill.ca).

Associate Director of Hypertension and Vascular Research Unit, Lady Davis Institute for Medical Research, Sir Mortimer B. Davis-Jewish General Hospital, McGill University,
Canada

Telephone: +1514-340-8222, extension 22204 / Fax: +1514-340-8721

3- Prof. Dr. Chi-Shiun Chiang, PhD. / (email: cschiang@mx.nthu.edu.tw).

Professor of Cancer Biology and Chairman of Department of Biomedical Engineering and Environmental Sciences, National Tsing Hua University, Taiwan.

Telephone: +886-3-573-3168 / Fax: +886-3-571-8649

4- Prof. Dr. Gamal Badr, PhD. / (email: gamal.badr@aun.edu.eg).

Professor of Immunology, Department of Zoology & Entomology, Assiut University,
Egypt.

Telephone: +20-111-0900-710/ Fax: +20-882-080-642

5- Dr. Vankayala Raviraj, PhD. / (email: ravirajv@ucr.edu).

Postdoctoral Research Fellow of Biochemistry at University of California, Riverside,
California, USA.

Telephone: +19514628131