

## Ali Jihad Hemid Al- Athari

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Date of birth: 1980



### EDUCATION:

- Masters of Molecular Pharmacology (Cancer Therapeutics), University of California, Davis, 06/2018**
- Masters of Pharmacology and Toxicology, College of Medicine, University of Babylon, 03/2013**
- Pharm. D. degree, (B.Sc. Pharmacy) College of Pharmacy, University of Baghdad, 08/2003**

### PROFFESIONAL APPOINTMNET:

- September 2019- present: Faculty in the department of pharmacy, **University of Al-Mustaqbal College of pharmacy.**
- June 2018- June 2019: Researcher, Comprehensive Cancer Center, **University of California, Davis, USA.**
- January 2017- June 2018: Post Graduate Student Researcher, **Comprehensive Cancer Center, University of California, Davis, USA.**
- October 2014- January 2017: Post Graduate Student Researcher, **Internal Medicine Department, Medical School, University of California, Davis, USA.**
- September 2011-February 2013: Post Graduate Student Researcher, **Babylon hospital for Pediatric and Maternity Medicine, Thalassemia center, Iraq.**
- October 2006- November 2010: Pharmacy Doctor, Health institutions, **Babylon Health Directorate, Iraq.**
- October 2004- October 2006: Teaching Assistant, Department of Basic Science, **College of Dentistry, University of Babylon, Iraq.**
- November 2003-October 2004: Teaching Assistant, Department of Pharmacology, **College of Medicine, University of Babylon, Iraq.**

### **FORMER ADMINISTRATIVE POSITIONS:**

- September 2019- present the Pharmacy Department Co-chair Al-Mustaqbal University College.
- September 2009 – November 2010: Head of Man Power Division and deputy of Planning Department Chair, Babylon Health Directorate, Iraq.

### **AREA OF SPECIALIZATION AND RESEARCH INTEREST:**

Molecular Pharmacology and Cancer therapeutics, particularly cancer stem cells (CSCs) targeting agents. Cancer is the most killer disease worldwide. Metastasis, relapse of tumor and resistance to conventional therapies are the primary causes of cancer-related death. Over the last decade, CSCs was identified as the significant player that responsible for metastasis, tumor relapse, and therapy resistance. Since Many molecular targets have been identified in CSCs including the self-renewal pathways, CSCs microenvironment, and immunotherapy targets. My research is focusing on developing anticancer agents that can take advantage of these targets to eliminate CSCs in order to achieve a radical cure of many cancers.

### **TEACHING EXPERIENCE:**

#### **College of pharmacy , Al-Mustaqbal University:**

September 2019- Present

Courses taught:

Pathophysiology / third stage

Pharmacology I / third stage

Pharmacology II / fourth stage

Pharmacology III / fourth stage

#### **University of California, Davis, USA:**

September 2017- June 2018, Teaching assistant (Demonstrator) in Pharmacology and Toxicology Graduate Program.

Courses taught:

Post Graduate Course: Principle of Pharmacology and Toxicology I

Post Graduate Course: Principle of Pharmacology and Toxicology II

Post Graduate Course: Cancer Biology

Post Graduate Course: Molecular Mechanisms of Cancer

#### **University of Babylon, IRAQ**

-October 2004- October 2006: Teaching Assistant, Department of Basic Science, College of Dentistry.

Courses taught:

Undergraduate course: Pharmacology lab instruction material and Pharmacology course tutorials

- November 2003-October 2004: Teaching Assistant, Department of Pharmacology, College of Medicine.

Courses taught:

Undergraduate course: Pharmacology lab instruction material and Pharmacology course tutorials.

### PUBLICATIONS:

- 1- Jihad, A., Attawi, J. A. A., Hussein, U. A. R., Ahmed, M., Saber, A. I., Hamood, S. A., ... & Alsalamy, A. H. (2023). **Investigation of adsorption of Fluorouracil as anticancer drug on C82, Si82, Ti-C82 and Ti-Si82 nanocages.** *Inorganic Chemistry Communications*, **155**, 111115.
- 2- Kadhim, M. M., Jihad, A., Hachim, S. K., Abdullaha, S. A., Taban, T. Z., & Rheima, A. M. (2022). **A molecular modeling on the potential application of beryllium oxide nanotube for delivery of hydroxyurea anticancer drug.** *Journal of Molecular Modeling*, **28(11)**, 357.
- 3- Chen, Y., Jihad, A., Hussam, F., Al-Abdeen, S. H. Z., Hussein, J. M., Adhab, Z. H., ... & Janani, B. J. (2023). **A facile preparation method for efficiency a novel LaNiO<sub>3</sub>/SrCeO<sub>3</sub> (pn type) heterojunction catalyst in photocatalytic activities, bactericidal assessment and dopamine detection.** *Surfaces and Interfaces*, **38**, 102830.
- 4- Faraj, J. A., Al-Athari, A. J. H., Mohie, S. E. D., Kadhim, I. K., Jawad, N. M., Abbas, W. J., & Jalil, A. T. (2022). **Reprogramming the tumor microenvironment to improve the efficacy of cancer immunotherapies.** *Medical Oncology*, **39(12)**, 239.
- 5- Al-Athari, A. J. H. **Correlation of N-terminal fragments of Atrial Natriuretic Neuropeptides (NT-ProANP) with Left Ventricle Ejection Fraction in Cases with Acute Myocardial Infarction.**
- 6- Aldhalmi, A. K., Al-Athari, A. J. H., & Al-Hindy, H. A. A. M. (2022). **Association of Tumor Necrosis Factor- $\alpha$  and Myeloperoxidase enzyme with Severe Asthma: A comparative study.** *Reports of Biochemistry & Molecular Biology*, **11(2)**, 238.
- 7- Al-Athari, A. J. H., Aldhalmi, A. K., & Al-Hindy, H. A. A. M. (2022). **Association of High-Sensitivity C-Reactive Protein and Vitamin D with Bronchial Asthma.** *Open Access Macedonian Journal of Medical Sciences*, **10(B)**, 931-936.
- 8- **The Utility of Serum IL-1 $\beta$  and CRP Together with Fractional Exhaled Nitric Oxide in the Diagnosis of Asthma in Adults**  
Hayder Abdul-Amir Makki Al-Hindy, Ali Jihad Hemid Al-Athari, Mazin J. Mousa, Safa Jihad Hameed and Suhad Hafidh Obeed
- 9- Aldhalmi<sup>1</sup>, Ahmed Khalid, and Ali Jihad Hemid Al-Athari. **"The Association between Alfacalcidol (1-alpha-hydroxyvitamin D<sub>3</sub>) and Oxidative Stress in Patients with Type II Diabetic Nephropathy."** *Systematic Reviews in Pharmacy* 11.11 (2020): 918-927.

- 10- Hemid, Ali Jihad, Hussein Naji Al-Shimmary, and Abdul-Razzak A. Latif. "The effect of deferasirox on the oxidative stress and inflammation in iron overloaded beta-thalassemic patients." *Medical Journal of Babylon* 10.1 (2013): 257-264.

### **CONFERENCE ACTIVITIES at the US:**

- 1- Presenting research data about the effect of proteasome inhibitor bortezomib in brain cancer (glioblastoma) stem cells enrichment and enhancing the targeting and elimination of those cells by the natural killer cells of innate immunity, Cancer Research Symposium, September 2018, Sacramento, USA.
- 2- Presenting research data about the effect of obesity on expanding cancer stem cells and enhancing tumor growth and metastasis in breast and skin cancers. Cancer Research Symposium, September 2017, Sacramento, USA.
- 3- Presenting research data about the effect of anti-hyperlipidemic drug statin on stem cells of lung cancers, Pulmonary Disease Conference, July 2016, Davis, USA.
- 4- Attending Cancer Immunotherapy Symposium, January 2017, Monterey, USA
- 5- Attending Cancer Immunotherapy Symposium, January 2018, Monterey, USA
- 6- Attending Molecular Medicine and Drug Development Symposium, March 2017, Davis, USA.
- 7- Attending Molecular Medicine and Drug Development Symposium, March 2017, Davis, USA.
- 8- Attending, Conference of Respiratory diseases, May 2016, San Francisco, USA
- 9- Attending Molecular Pharmacology symposium, November 2015, Davis, USA.
- 10- Attending Cardiovascular Research Symposium, June 2015, Davis, USA.
- 11- Attending environmental Toxicology symposium, May 2015, Davis, USA.
- 12- Attending Neuropharmacology symposium, March 2015, Davis, USA.

### **TRAININGS AT UNIVERSITY OF CALIFORNIA, DAVIS, USA :**

- 1- **Foundation of Research Integrity Course 2016-2017:**  
One Year course covering all the ethical values in doing research using animal models, human samples or human patients. It also included all the ethics and rules that should be followed in writing or in pioneer review.
- 2- **Teaching Assistance Training:**
  - Teaching Strategies, Creating Presentation for Student Learning, Promoting Student Participation and Creating Inclusive Classrooms
  - Living the Principles of Community
  - Ethical Values and Conduct
- 3- **Lab Safety Trainings:**
  - Laboratory Safety Fundamentals
  - Use of Fume Hood Training

- Use Biological Safety Cabinet Training
- Aerosol Transmissible Disease
- Cryogen Safety
- Bio-waste Handling and Disposal
- Blood Borne Pathogens Awareness

#### **4- Lab Animal Trainings:**

- Animal Care and Use 101
- Mouse handling
- Lab Animal Skill - Mice
- Rodent Survival surgery Course
- Aseptic Techniques
- Animal Biological Safety

#### **5- Miscellaneous Trainings:**

- Cyber Security Awareness Training
- Privacy and Security Training
- Work Place Violence Prevention Training

#### **LINGUISTIC SKILLS:**

**ENGLISH:** fluent in speaking, reading and writing

**French:** reading only

#### **COMPUTER SKILLS:**

**Internet:** searching, communicating, and cyber security

**Microsoft office:** Word, Excel and Power point

**Graph pad Prism program:** data analysis and biostatistics

**Flow Jaw program:** flow cytometry data analysis.

#### **LABORATORY SKILLS:**

**In vitro:**

- *Cell Culture:*
  - Growing adherent human, and animals' tumor cell lines.
  - Growing non-adherent human and animal immune cells.
  - Sorting the tumor and immune cells using magnetic beads or flow cytometry.
  - Forming spheroids from the tumor cell line to simulate the growth of cancer cells
- *Protein extraction, quantification, and Western Blotting*
- *RNA extraction and PCR*

- *ELISA*
- *Hematoxylin and Eosin staining of tissue slides.*
- *Immunohistochemistry (IHC)*
- *Natural killer cells killing assay*
- *T cell proliferation assays*
- *Mixed Lymphocytes Reaction (MLR)*
- *Flow cytometry*

**In vivo:**

- *Mice handling.*
- *subcutaneous xenograft formation and tumor measurement.*
- *Subcutaneous (s.c) and intraperitoneal (i.p) injection.*
- *dissecting and harvesting tumor and murine organs.*

**Tissue processing:**

- *Primary tumor processing into single cells suspension.*
- *Liver, spleen and lymph node processing into single cells suspension.*
- *Human blood procession, peripheral blood mononuclear cell (PBMC) isolation and enriching for Natural killer cells.*