



***CURRICULUM VITAE***  
**MONA EL KHATIB**

**PERSONAL INFORMATION**

**Date of Birth:** 15.07.1985

**Place of Birth:** Abu Dhabi, UAE

**Nationality:** Lebanese

**EDUCATION**

**2015-** Assistant Professor at Abdullah Gül Üniversitesi, Kayseri, Turkey

**2009-2012** PhD in Molecular Medicine, Hannover Medical School, Germany

**2007-2009** Masters of Sciences (Cancer Research), American University of Beirut, Lebanon

**2004-2007** Bachelor of Science in Biology, American University of Beirut - Beirut, Lebanon

**PROFESSIONAL EXPERIENCE**

**Projects:**

-Mona El Khatib, Principal Investigator, Histon Deasetilaz İnhibitörlerinin Pten/Pi3k/Akt/Mtor Yolağı Ve Kolanjiokarsinoma Gelişimine Olan Etkilerinin Moleküler Düzeyde Belirlenmesi, TÜBİTAK 3501, 217S660, 250.000 TL, 2018-2021

-Mona El Khatib, Principal Investigator, Akut Myeloid Lösemi Tedavisi İçin Hedgehog ve Otofaji Yolaklarının Düzenlenmesi, TÜBİTAK 3001, 216S319, 60.000 TL, 2017-2019.

-Mona El Khatib, Principal Investigator, The fine tuning of the Hedgehog and autophagy pathways to combat Cholangiocarcinoma, AGU-BAP, TAB-2016-67, 100.000TL, 2016-2018

**Research Experience (mm/yy)**

**12/12- 11/14**

**Post-Doctoral Research Associate**

Department of Pediatric Hematology and Oncology, Hannover Medical School, Hannover, Germany

Project Handling:

*Mona El Khatib*

- 1- Establishing a humanized mouse model in order to examine the effects of selective drugs that target deregulated key pathways in AML. This system is used to study the full complexity and heterogeneity of the human disease. This project involved the collaboration with pharmaceutical companies to test novel drugs in this system.
- 2- Valproic Acid as a potential therapeutic in Down Syndrome associated acute megakaryocytic leukemia. This project focuses on unveiling the exact means of action that make valproic acid such a potent anti-leukemic agent. Molecular analytical tools are used in order to understand how exactly valproic acid exhibits its effects in Leukemia.

**10/09-11/12**

**PhD in Molecular Medicine**

Hannover Medical School, Hannover, Department of Gastroenterology, Hepatology and Endocrinology.  
Universitätsklinikum Tübingen, Tübingen, Department of Internal Medicine.

Project Handling:

1. Analysis of the Notch signalling pathway in the carcinogenesis of cholangiocarcinoma.
2. The role of the Hedgehog Signaling in the carcinogenesis of cholangiocarcinoma in vitro and in a Xenograft Mouse Model
3. The correlation between CD44-positive cells and tumor response to chemotherapy in patients with gastrointestinal cancer

**03/07-08/09**

**Master of Science**

Thesis at the Department of Biology, American University of Beirut - Beirut, Lebanon

Thesis title: "Mechanisms of hypoxia selectivity and DNA damage of 2-benzoyl-6,7-dichloro-3-phenylquinoxaline 1,4-dioxide (DCQ) in human colon cancer cells."

**10/08 – 12/08**

**Internship at Earth University in Costa Rica**

Partitioning and fractionation of tropical plant extracts by thin layer chromatography and MPLC.

**Teaching Experience**

**09/15-**

**Assistant Professor**

-Teaching the following undergraduate classes:

- Science of Nature I (SCI101)
- Science of Nature II (SCI102),
- Biology for Engineers I (BIO101)
- Biology for Engineers II (BIO102)
- General Biology Lab I (MBG103)
- General Principles of Biology II (MBG102)

-Teaching the following graduate classes:

- Cancer Biology and Treatment (BENG 514)
- Stem Cells (BENG 537)
- Current topics in Molecular Biology (BENG 505)

*Mona El Khatib*

-Able to teach the following undergraduate classes:

- Cell Biology
- Molecular Biology
- Gene Regulation
- Basic Biological Behavior
- Current Topics in Molecular Biology
- Special Techniques and Applications in Molecular Biology
- Stem Cells
- Model Organisms
- Developmental Biology
- Molecular Medicine

- Able to teach the following graduate classes:

- Advanced Cell Biology
- Advanced Molecular Biology
- Current Topics in Molecular Biology
- Special Techniques and Applications in Molecular Biology
- Stem Cells
- Molecular Medicine
- Transgenic Mice
- Metastasis and Tumor Microenvironment
- Cell Death
- Developmental Biology

**03/07-08/09**

**Graduate Assistant**

Teaching laboratory courses in General Biology I (Biol 201), General Biology II (Biol 202) and Ecology (Bio252).

**03/07-08/09**

Training students in tutorial projects at the Department of Biology, American University of Beirut, Beirut, Lebanon

**HONORS AND AWARDS**

**2012**

*Summa cum laude* for the PhD thesis entitled: “Analysis of Sonic Hedgehog and Notch Signaling Pathways in the Carcinogenesis of Cholangiocarcinomas”

**2012**

Awarded “Best Poster Prize” at Falk Symposium, for project entitled: Analysis of the Notch Signaling Pathway in Cholangiocarcinoma Cell Lines, Mainz, Germany

**2009**

Awarded a Stipend of the Hannover Biomedical Research School

**2007**

*Mona El Khatib*

Awarded a Graduate Assistantship from the Department of Biology, American University of Beirut, Beirut, Lebanon

### **Skills**

*Languages:* Arabic and English (Written, Spoken, and Read)

*Computer:* Word, Excel, Powerpoint, AdobePhotoshop, SPSS, Graphpad, Refwork, FlowJo, Kaluza, ImageJ

### **Acquired Expertise:**

**Molecular and Cellular Biology Techniques:** a) *in vitro*: Cell culture (cell proliferation and toxicity assays), clonogenic survival assays, cell cycle analysis and apoptosis assays (Flow Cytometry), virus production (transfection and transduction), detection and isolation of stem cells from blood, differentiation studies, migration and invasion assays, luciferase reporter assays, immunohistochemistry, immunofluorescence, comet assay for DNA damage, western blotting techniques, southern blotting techniques, RNA extraction and quantification, RT and Real time PCR, gene silencing technique (siRNA and shRNA), cloning and mutagenesis techniques, confocal microscopy.

b) *in vivo*, Generation of Xenograft (using nude mice through s.c injections) and Xenotransplantation mice models (intrafemoral and intravenous injections of NSG mice) , working with transgenic mice (knockout mouse models), gavage and i.p treatment.

**Analytical Techniques:** Thin Layer Chromatography, partitioning and fractionation of plant extracts, MPLC, SILAC

### **CONTRIBUTION TO ACADEMIC CONFERENCES**

#### **International:**

1. **El Khatib M**, Kalnytska A, Palagani V, Kossatz U, Manns MP, Malek NP, Wilkens L, Plentz RR. Blocking the hedgehog pathway attenuates carcinogenesis of cholangiocellular carcinoma. European Association for the Study of the Liver (EASL), Berlin. 2011
2. **El Khatib M**, Kalnytska A, Palagani V, Kossatz U, Manns MP, Malek NP, Wilkens L, Plentz RR. The Hedgehog signalling pathway: A novel therapeutic target for cholangiocellular carcinoma. Viszeralmedizin 2012, Hamburg, September 2012
3. **El Khatib.M**, Palagani.V, Kossatz.U, Zender S., Malek.N.P, Plentz.R.R. Analysis of the Notch signaling pathway in the Carcinogenesis of Cholangiocarcinoma. United European Gastroenterology Week (UEGW). Amsterdam, October 2012

#### **National :**

1. **El Khatib M.**, “Cancer: when cells go out of order.” Molekular Biyoloji ve genetikte Güncel Konular Sempozyumu, February 2016, Kayseri
2. **El Khatib M.**, “Autophagy repression: A novel anti-leukemic function of histone deacytelase inhibitors in myeloid leukemias”, Yaşam Bilimleri Sempozyum, February 2016, Kayseri

3. **El Khatib M.**, Epigenetics in Acute Myeloid Leukemia.” 3. Uluslararası Katılımlı Deneysel Hematoloji Kongresi”, May 2016, Kayseri.
4. **El Khatib M.**, “Developmental Pathways Orchestrate the Carcinogenesis of Cholangiocarcinoma.” Yaşam Bilimleri Sempozyum, February 2017, Kayseri
5. **El Khatib M.**, “Signal Transduction Pathways and Changes in Leukemogenesis.” IV Uluslararası Katılımlı Deneysel Hematoloji Kongresi”, April 2017, Gaziantep
6. **El Khatib M.**, “Autophagy: A Friend or Foe to Acute Myeloid Leukemia.” Yaşam Bilimleri Kongresi, February 2018, Kayseri
7. Aktaş, N., Şansaçar, M., **El Khatib, M.**, “The Fine Tuning of the Hedgehog and Autophagy Pathways to Combat Acute Myeloid Leukemia”. V Uluslararası Katılımlı Deneysel Hematoloji Kongresi, April 2018, Malatya
8. **El Khatib, M.**, “Lökomogenezde Sinyal İleti Yolakları ve Moleküler Değişiklikler”. V Uluslararası Katılımlı Deneysel Hematoloji Kongresi, April 2018, Malatya

## **LIST OF PUBLICATIONS:**

### **Research Articles:**

1. Emmrich S\*, Engeland F\*, **El-Khatib M**, Henke K, Katsman-Kuipers JE, Zwaan CM, Pich A, Reinhardt D, Fornerod MWJ, van den Heuvel-Eibrink MM and Klusmann JH. miR-139 controls translation in myeloid leukemia through EIF4G2. *Oncogene*. 2016. doi: 10.1038/onc.2015.247.
2. Wutka A, Palagani V, Barat S, Chen X, **El Khatib M**, et al. (2014) Capsaicin Treatment Attenuates Cholangiocarcinoma Carcinogenesis. *PLoS ONE*. 2014. 9(4): e95605. doi:10.1371/journal.pone.0095605
3. Stankov ME\*, **El Khatib M\***, Kumar Thakur B, Heitmann K, Panayotova-Dimitrova D, + et al. Histone deacetylase inhibitors induce apoptosis in myeloid leukemia by suppressing autophagy. *Leukemia* 2014 doi: 10.1038/leu.2013.264
4. Palagani V, Bozko P, **El Khatib M**, Belahmer H, Giese N, Sipos B, Malek NP, Plentz RR. Combined inhibition of Notch and JAK/STAT is superior to monotherapies and impairs pancreatic cancer progression *Carcinogenesis*. 2014 Jan 2.
5. Emmrich S Katsman-Kuipers J E, Henke K, **Khatib M E**, Jammal R, + et al. miR-9 is a tumor suppressor in pediatric AML with t(8;21). *Leukemia* 25 November 2013 doi:10.1038/leu.2013.357
6. **El Khatib M\***, Bozko P\*, Palagani V, Malek NP, Wilkens L, Plentz RR. Activation of Notch signaling is required for cholangiocarcinoma progression and is enhanced by inactivation of p53 in vivo. *PLoS One*. 2013 Oct 30;8(10):e77433.

7. Zender S, Nickeleit I, Wuestefeld T, Sørensen I, Dauch D, Bozko P, **El-Khatib M**, Geffers R, Bektas H, Manns MP, Gossler A, Wilkens L, Plentz R, Zender L, Malek NP. A critical role for notch signaling in the formation of cholangiocellular carcinomas *Cancer Cell*. 2013 Jun 10;23(6):784-95.
8. **El Khatib M\***, Kalnytska A\*, Palagani V, Kossatz U, Manns MP, Malek NP, Wilkens L, Plentz RR. Inhibition of hedgehog signaling attenuates carcinogenesis in vitro and increases necrosis of cholangiocellular carcinoma. *Hepatology*. 2013 Mar;57(3):1035-45.
9. Palagani V, **El Khatib M**, Kossatz U, Bozko P, Müller MR, Manns MP, Krech T, Malek NP, Plentz RR. Epithelial mesenchymal transition and pancreatic tumor initiating CD44+/EpCAM+ cells are inhibited by  $\gamma$ -secretase inhibitor IX. *PLoS One*. 2012;7(10):e46514.
10. Palagani V\*, **El Khatib M\***, Krech T, Manns MP, Malek NP, Plentz RR. Decrease of CD44-positive cells correlates with tumor response to chemotherapy in patients with gastrointestinal cancer. *Anticancer Res*. 2012 May;32(5):1747-55.
11. **El-Khatib M**, Geara F, Haddadin MJ, Gali-Muhtasib H. Cell death by the quinoxaline dioxide DCQ in human colon cancer cells is enhanced under hypoxia and is independent of p53 and p21. *Radiat Oncol*. 2010 Nov 15;5:107.

(\*: both authors contributed equally to the work)

#### Book chapters:

- 1- El Khatib. M., 2018. Tümör Mikroçevresi, Kanser Moleküler Biyolojisi., Kisayol Yayıncılık, 137-150, ISBN:978-605-2329-28-3

#### **Referees:**

- 1- Priv. Doz. Dr. med. Ruben R. Plentz  
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