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Nationality: German, Israeli

Born on 15.11.1989 in Kfar Sava, Israel

Muad Abd El Hay

Education

- 2015–2021 **Ph.D.**, *Ruperto Carola University*, Heidelberg, Germany.
- 2011–2014 **M.Sc.**, *Ulm University*, Ulm, Germany, 1.2.
Molecular Medicine
- 2008–2011 **B.Sc.**, *Ulm University*, Ulm, Germany, 2.3.
Molecular Medicine
- 2005–2007 **Bagrut**, *Amal 1 High School*, Tira, Israel, 97%.
with focus on Biotechnology, Biochemistry, and Biology

Thesis

- Ph.D. *The roles of TRPV1 and TRPM2 in warm temperature detection*
Supervisors Prof. Dr. Jan-Erik Siemens and Jun. Prof. Dr. Daniela Mauceri
- Master's *The effect of TRAIL on adipokine secretion in primary and SGBS adipocytes*
Supervisors PD Dr. Pamela Fischer-Posovszky and MD Dr. Jochen Lennerz
- Bachelor's *Molecular characterization of S. agalactiae strains causing streptococcal toxic shock syndrome*
Supervisors Prof. Dr. Barbara Spellerberg and Prof. Dr. Holger Barth

Publications

- [1] M. Y. Abd El Hay, G. Kamm, and J. E. Siemens. Paradoxical roles of TRPV1 and TRPM2 in warm temperature detection. in prep.
- [2] G. B. Kamm, J. C. Boffi, K. Zuza, S. Nencini, J. Campos, K. Schrenk-Siemens, I. Sonntag, B. Kabaoğlu, M. Y. A. El Hay, Y. Schwarz, A. Tappe-Theodor, D. Bruns, C. Acuna, T. Kuner, and J. Siemens. A synaptic temperature sensor for body cooling. *Neuron*, 109(20):3283–3297.e11, Oct. 2021.
- [3] K. Schrenk-Siemens, J. Pohle, C. Rostock, M. A. El Hay, R. M. Lam, M. Szczot, S. Lu, A. T. Chesler, and J. Siemens. HESC-derived sensory neurons reveal an unexpected role for PIEZO2 in nociceptor mechanotransduction. Preprint, *Neuroscience*, Aug. 2019.
- [4] V. Zoller, J.-B. Funcke, J. Roos, M. Dahlhaus, M. Abd El Hay, K. Holzmann, R. Marienfeld, T. Kietzmann, K.-M. Debatin, M. Wabitsch, and P. Fischer-Posovszky. Trail (TNF-related apoptosis-inducing ligand) induces an inflammatory response in human adipocytes. *Scientific Reports*, 7(1):5691, Dec. 2017.
- [5] P. Sendi, M. A. el Hay, C. M. Brandt, and B. Spellerberg. Group B Streptococcal

Toxic Shock Syndrome and covR/S Mutations Revisited. *Emerging Infectious Diseases*, 23(1):150–152, Jan. 2017.

- [6] V. Zoller, J.-B. Funcke, M. Keuper, M. Abd El Hay, K.-M. Debatin, M. Wabitsch, and P. Fischer-Posovszky. TRAIL (TNF-related apoptosis-inducing ligand) inhibits human adipocyte differentiation via caspase-mediated downregulation of adipogenic transcription factors. *Cell Death & Disease*, 7(10):e2412, Oct. 2016.
- [7] J.-B. Funcke, V. Zoller, M. Abd El Hay, K.-M. Debatin, M. Wabitsch, and P. Fischer-Posovszky. TNF-related apoptosis-inducing ligand promotes human preadipocyte proliferation via ERK1/2 activation. *The FASEB Journal*, Apr. 2015.
- [8] J. Lemke, S. von Karstedt, M. Abd El Hay, A. Conti, F. Arce, A. Montinaro, K. Papenfuss, M. A. El-Bahrawy, and H. Walczak. Selective CDK9 inhibition overcomes TRAIL resistance by concomitant suppression of cFlip and Mcl-1. *Cell Death & Differentiation*, 21(3):491–502, Mar. 2014.

Experience

Internships

- 10/12 – 04/13 **UCL Cancer Institute**, University College London, With a stipend from the BCCG foundation and ERASMUS SMP.
Prof. Dr. Henning Walczak
Investigating the effect of a CDK9 inhibitor on the TRAIL sensitivity of NSCLC

Conferences

- 07/20 **FENS2020 - Federation of European Neuroscience Societies Forum**, Virtual.
Poster presentation and abstract submission
- 07/18 **FENS2018 - Federation of European Neuroscience Societies Forum**, Virtual.
Poster presentation and abstract submission
- 06/17 **SFB1185 - Neurocircuits symposium**, Heidelberg, Germany.
Poster presentation, abstract submission, and poster price
- 09/11 **63th Annual Conference of the German Society for Hygiene and Microbiology**, Essen, Germany.
Poster presentation and abstract submission

Work Experience

- 08/09 – 03/14 **Corona Web Administrator**, *Medical Faculty*, University Hospital Ulm.
Prof. Dr. Thomas Wirth – Dr. Hubert Liebhardt
- 03 – 04/10 **Tutor for Organic Chemistry**, *Department of Organic Chemistry*, Ulm.
Prof. Dr. Hans-Ullrich Siehl

Methods and Skills

- Basics Cell culture, bacterial culture, DRG/TG culture preparation
- Genomics DNA- and RNA-extraction, q/PCR, cloning, sequencing, shRNA, whole-mount ISH
- Proteomics Protein extraction, western blot, ELISA, protein purification
- FACS Basics, cell cycle analysis, apoptosis detection
- Imaging Fluorescence microscopy, calcium imaging
- Animal work FELASA B certificate, hargreaves assay, two-place preference test, CCI-surgery

Misc. Zebrafish breeding, microinjection, Lenti- and AAV-virus production

Computer skills

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| R | Expert | Python | Beginner |
| Emacs | Advanced | LaTeX | Beginner |

Languages

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| Arabic | Native |
| German | Fluent |
| English | Fluent |
| Hebrew | Fluent |
| Polish | Basic |

Extra Curricular Activities

- 2016 – Now **Initiator and Coordinator**, *uniMIND Project and uniMIND Heidelberg*, Heidelberg University, Journal club and discussion group about research and therapeutic use of psychedelic substances.
<https://mind-foundation.org/research/unimind/>
- 2009 – 2013 **Organization and Moderation**, *2nd, 3rd, 5th and 6th Annual "Tag der Molekularen Medizin" students symposium*, University of Ulm.
- 04/11 – 03/14 **Board Member**, *Biotechnologic Student's Initiative (btS)*, University of Ulm.
- 10/08 – 03/14 **Active Member**, *Student's Council*, University of Ulm.