**Rola S. Zeidan**

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| Personal Information | | | | | | |
|  | | | **aGe Group:**  **Marital status:** | | 30-35  Married | |
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| Education | | | | | | |
|  | | **- University of Florida**   * PhD in Physiological Sciences- Concentration: Toxicology (2015-2020)   **- American University of Science and Technology - Beirut**   1. MSc in Bioanalytical toxicology (2010 – 2015).   **- Lebanese University**   1. Maitrise es Science in Biology with distiction 2. M1 in biology with distinction | | | |
|  | | **- Centre Culturelle de France (CCF)**   * DELF A1, (niveau A3) | | | |
|  | | **- AMS, Ras El Maten**   * Bac II (Life Sciences)   **- Certificate of Completion of Graduate Assistant Teaching Program – University of Florida**  **- CITI Certificate for human subject research and IACUC Training** | | | |
| Experience   |  | | --- | |  | | * Teaching orphans at **DIYA – Aitat (***Summer 2006 -2007* + winter 2009) * Training sessions in the *Hematology & Urology* laboratories of **Hospital AAA - Beirut** *(winter 2007)* * 65 hrs of training in**Ibn Sina Pharmacy** *(winter 2008)* * Trainingsessions in *hematology labs* section of**Hospital RA - Beirut** *(spring 2008)* * Training sessions for a year and a half at **AUST** on using GC-FID, GC-MS, HPLC, UV-Vis, Wet Chemistry, TLC, Atomic absorption, Drug Extraction from body fluids, testing for explosives, testing for pesticides, SPME,… * Teaching at AMS and Future Generation School (FGS) Biology for grade 7 (and tutoring all other grades), chemistry grades 8-12, teaching physics for grades 8, 10, 12 S.E. and Mathematics for grade 7 (*2010-2012*) * **Master thesis** (designing and planning the study, writing a detailed project proposal, writing a grant proposal, preparing budget, preparing progress reports, developing the data collection instrument – the questionnaire as well as the consent form, sample collection, performing lab work (mainly sample extraction and GCMS screening), communicating with chemicals suppliers to get quotations, writing reviews and research articles, organizing meetings, applying for grants, participating & presenting in conferences, participating and presenting in awareness campaigns, data analysis) * **Institutional Review Board** (IRB) Officer Assistant at the American University of Beirut (AUB) (2012-2013) * Volunteer Researcher in Vulpe’s lab, Department of Nutritional Sciences and Toxicology at UC-Berkeley (2014 ). * Lab Tech at Vulpe’s lab, Department of Nutritional Sciences and Toxicology at UC-Berkeley (Jan 2015-August 2015 ). * Graduate Assisant PhD Student at Vulpe’s lab, Department of Nutritional Sciences and Toxicology at University of Florida (August 2015-May 2020 ). * TA for Reproductive Physiology – Theriogenology course for 2nd year vet students – University of Florida (Fall 2017). * TA for Cell Physiology course – University of Florida (Spring 2018). * Postdoctoral Associate at the University of Florida, Toxicology Risk Assessment |   PhD Thesis – Dr Chris Vulpe Lab – CVM Department of Physiological Sciences  ***Hypothesis***: For my thesis project, I hypothesized that the cellular signaling response to mitochondrial dysfunction, particularly the retrograde signaling from the mitochondria to the nucleus, is dependant on the individual mitochondrial process affected. My goal was to identify signaling pathways involved in the response to various mitochondrial stressors that target different complexes of the electron transport chain and to investigater whether additional signaling pathways other than the RTG are involved.  ***Methods***: To answer my questions, I used a functional genomics approach in *Saccharomyces cerevisiae* to comprehensively define modulators of the response to various mitotoxicants. The barcoded *S. cerevisiae* deletion knockout (KO) collection was utilized to simultaneously interrogate the role of each gene in modulating cellular sensitivity to each mitotoxicant. We focused on a set of well characterized toxicants which independently target different complexes of the mitochondrial electron transport chain. I further used multiple pathway analysis algorithms to reveal signaling pathways contributing to the response to each mitotoxicant. I validated candidate genes/pathways in individual mutants and further investigated the relevant mechanisms using different functional assays.  ***Results***: The study revealed multiple pathways modulating the response to impaired oxidative phosphorylation (OXPHOS) resulting from ETC inhibition. The results indicated divergent requirements for the Target of Rapamycin Complex (TORC) pathway signaling which is dependent upon the specific complex inhibited. In addition, mutants of components of the High Osmolarity Glycerol (HOG) pathway are more resistant to complex IV inhibition by formic acid but more sensitive to complex IV inhibition by oligomycin. The study further revealed a role for ceramide and sphingolipid signaling as well as the Regulators of IME2 (RIM) pathways in the response to complex III inhibition by myxothiazol.  ***Significance***: These findings indicate that cellular responses to different mitochondrial insults are modulated by various sets of gene products and cellular complexes. Elucidating cell signaling pathways associated with specific types of mitochondrial stress can inform on pathophysiology of mitochondria-related disorders which could ultimately lead to therapies for such disorders. | | | | | |
| Honors and Awards   * Grinter Fellowship, University of Florida – Gainesville – FL , 2013-2015 * Honorary Mention, Society of Toxicology Annual Meeting – San Antonio – TX – USA, March 2018 * Best in show presentation award, Phi Zeta Day, University of Florida – Gainesville – FL , April 2018. * UF – College of Vet Med VGSA travel award , March 2018 * 2nd place Oral presentation SE SOT, October 2018. * UF – College of Vet Med “Excellence in Basic Science Research” Award, April 2019 * Honorable Mention - Florida Genetics Symposium - November 2019 * University of Florida International Student Award – November 2019   Conferences:   * UF Genetics Symposium - Gainesville – FL – USA, October 2019 ( Poster Presentation) * UF Phi Zeta Day - Gainesville – FL – USA, April 2019 (Poster Presentation) * SE SOT Meeting – Gainesville – FL – USA – November 2018 (Platform Presentation) * UF Phi Zeta Day - Gainesville – FL – USA, April 2018 (Platform Presentation) * Society of Toxicology Annual Meeting – San Antonio – TX – USA, March 2018 ( Poster Presentation) * UF Genetics Symposium - Gainesville – FL – USA, October 2017 ( Poster Presentation) * Society of Toxicology Annual Meeting – Baltimore – MD – USA, March 2017 ( Poster Presentation) * UF Phi Zeta Day – Gainesville – FL – USA, April 2016 (Platform Presentation) * YES Meeting (SETAC) - Gainesville – FL – USA, April 2016 (Platform Presentation) * Society of Toxicology Annual Meeting – New Orleans – LA – USA, March 2016 ( Poster Presentation) * South East Chapter – SETAC Meeting – Pensacola, FL, November 2015 (Attending). * UF Genetics Symposium - Gainesville – FL – USA, November 2015 ( Poster Presentation) * International BioIron Society Biannual Meeting – Hangzhou – China – September 2015 ( Poster Presentation) * Society of Toxicology Annual Meeting – San Diego – CA – USA, March 2015 ( Poster Presentation) * 4th Annual Poster Conference in Food safety at the Lebanese American University (LAU) on the 4th of May 2011 ( Poster Presentation) * EGRBS Conference at AUST on the 30th and 31st of May 2011 (Poster Presentation) * Congress Union of Arab Pediatrics Societies– Beit el Tabib on the 6th of October, 2011 (oral presentation).   Publications   * Amin Sobh, Alex Loguinov, Gulce Naz Yazici, **Rola S Zeidan**, Abderrahmane Tagmount, Nima S Hejazi, Alan E Hubbard, Luoping Zhang, Chris D Vulpe, Functional Profiling Identifies Determinants of Arsenic Trioxide Cellular Toxicity, Toxicological Sciences, Volume 169, Issue 1, May 2019, Pages 108–121, <https://doi.org/10.1093/toxsci/kfz024> * Sobh A, Loguinov A, Zhou J, Jenkitkasemwong S, **Zeidan RS**, El Ahmadie N, Tagmount A, Knutson M, Fraenkel PG, Vulpe C. Genetic Screens Reveal CDC115 as a modulator of erythroid iron and heme trafficking. Am J Hematol. 2020 Jun 8. doi: 10.1002/ajh.25899. Epub ahead of print. PMID: 32510613. * **Zeidan, RS**., McLachlan, S, Medina-Cleghorn, D., Page, K., McLachlan, S., Eskin, E., Nomura, D., Vulpe, C., Distinct Metabolomic Profiles in Inbred Mouse Strains and Correlation with Iron. Manuscript in Preparation. * **Zeidan, RS**., Ma, R., Rudel, R., Ackerman, J., Loguinov, A., Tagmount, A., Vulpe, C., Fasulo, M. Using  Budding Yeast to Assess P450-dependent  Toxicity of Breast Cancer-associated  Chemicals. Manuscript in Preparation. * **Zeidan, RS**., Rapier, H., Bose, D., Proctor, M., Sobh, A., Loguinov, A., Aris, J., Vulpe, C. Identifying Mitochondria-cell Signaling Networks by Functional Profiling. Manuscript in Preparation.   languages | | | | | |
| **English** (writing, reading, and speaking), **Arabic**, **French** (can manage), **Spanish** (beginner). | | | | |
| Interests & hoBBies | | | | | | |
|  | | | | * Research  1. Charity and community work 2. Hiking & enjoying nature  * Tennis | |
| ReferenceS | | | | | | |
|  | | | | **Chris Vulpe, MD, PhD**  Professor  Department of Nutritional Sciences and Toxicology  University of California, Berkeley  Berkeley, CA  (510) 642 1834  [vulpe@berkeley.edu](mailto:vulpe@berkeley.edu)  **Michael Clinton, RN (CARN) RHP (AHPRA) PhD MSc BA(Hons) FAIM**  Professor & vice-chair of SBS-IRB  Division of Master of Nursing Science Program  Rafic Hariri School of Nursing  Faculty of Medicine  American University of Beirut  +961-1-350000 Ext. 5956  [mc42@aub.edu.lb](mailto:mc42@aub.edu.lb)  **Zouhair Attieh, PhD**  Dean  Department of Lab Science and Technology  Faculty of Health Sciences  AUST Lebanon  +(961) 1 218716 ext 286  [zattieh@aust.edu.lb](mailto:zattieh@aust.edu.lb) | |