**EDUCATION**

Dr. JAWAD ALZEER

Senior Scientist

PhD. ETHZ

Swiss Citizen





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| Experienced and dedicated Docent with a track record of success in academia and industry. Proficient in facilitating interactive communication and discussions with students and team members. Possesses exceptional communication skills and a deep understanding of individual personalities. Demonstrates precision and enthusiasm in retaining and delivering information. Known for being personable and welcoming with a keen eye for detail and an unwavering commitment to excellence. Committed to empowering individuals through knowledge sharing, confidence building, and skill enhancement. | **** | **Research Scientist** | Nucleic Acid Chemistry **2006**  **Institute of Molecular Cancer Research, Zurich, CH**   * DNA-Repair * Gene Therapy * Advisor: Prof Orlando Schärer   **University of Michigan, Ann Arbor, Michigan, USA. 2000**   * RT Inhibitors for human immunodeficiency virus * Faculty of Pharmacy * Advisor: Prof George Kenyon   **Postdoc**| Medicinal Chemistry **1998 Hoffmann La Roche, Basel, Switzerland**   * Molecular Drug Design * Identification of new antimalarial pharmacophore * Adviser: Dr. Raffaello Masciadri   **PhD.** | Organic Chemistry | Carbohydrate **1996**  **Swiss Federal Institute of Technology (ETH), Switzerland**   * Dissertation: Towards oligosaccharide analogues of cellulose * Received SNF Scholarship * Advisor: Prof. A. Vasella; Co-examiner: Prof. F. Diederich | |
|  | **SKILLS** | | |
| **HONORS** | **First Class with Distinction**  * Offered Merit Certificate * Stood Third Position in the Faculty of Science. * Stood Second Position in the Chemistry Department | **** | * Managing * Consultation * Auditing * Supervising * Experience in Conflict Resolution * Recruiting activities * Research * Teaching | * Negotiation * Leadership ability * Friendly and personable * Initiator * Motivational style * Strong communicator * Committee oversight * Presentation |
| * M.Sc. and B.Sc. with Distinction | **AFFILIATIONS** | | |
| * Secured "A" Grade in all Chemistry Courses | **** | * Member: Swiss Chemical Society * Member: The international Society of Business Leaders * Founder: Swiss Scientific Society for Developing Countries * Founder: Halalopathic Research Unit | |

**WORK HISTORY**

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| *April 2016–Now* | **** | **Docent & Senior Researcher**  **University of Zurich, Switzerland**   * Conducted design and synthesis of modified nucleosides as anti-cancer prodrugs for metabolic studies. * Explored new medical approaches to activate the immune system and revive the concept of complete recovery in cancer therapy. * Evaluated new hypotheses in preventing and fighting COVID-19. * Bridged Medicine and Chemistry to enhance the efficacy of existing drugs. * Developed and implemented recruitment strategies, interviewed applicants, and managed the hiring process including employment contracts.   Managed chemistry courses for medical students and supervised academic work to ensure compliance with high-quality standards. |
| *Jan 2014- Now* | **** | **Managing Director**  **Swiss Scientific Society for Developing Countries, Dubendorf, Switzerland**   * Facilitated and organized scientific and technical exchange programs with developing nations to promote collaboration and knowledge-sharing across borders. * Established robust partnerships and networks focused on fostering innovative projects, transferring knowledge, and exchanging experiences for the mutual benefit of all involved parties. * Served as a reliable and impartial entity to initiate negotiations and facilitate investment flows, maintaining a stable investment climate and offering neutral dispute resolution to ensure mutual advantages for investors. * Catalyzed growth and promoted expansion by identifying and pursuing new opportunities for collaboration and partnership. |
| *Jun 2012–May 2016* | **** | **Senior Research Scientist**  **University of Zurich, Switzerland**   * Conducted research on anticancer drugs designed to target G-quadruplex DNA. * Designed and synthesized modified nucleosides as cancer prodrugs for metabolic studies. * Investigated medicinal plants as potential therapies for cancer. * Collected samples and performed fieldwork. * Supervised junior staff, including technicians and junior scientists, to ensure research objectives were met. * Maintained high-quality standards throughout all research activities. * Collaborated with educators and administrators to discuss issues of mutual interest. |
| *Sep 2010–Now* | **** | **Assistant Professor**  **Palestine Polytechnic University, Hebron, Palestine**   * Developed a novel, mild and efficient extraction method for natural products. * Instructed students in General Chemistry, Organic Chemistry & Biochemistry. * Collaborated with faculty members to design Nutrition and Therapy curriculum for departmental courses. * Adapted teaching methods and class materials to cater to individual student needs.   Designed curriculum according to Palestine Polytechnic University standards. |
| *Oct 2009–Aug 2010* | **** | **Senior Scientist**  **Lipomed AG, Arlesheim, Basel**   * Developed a novel anti-cancer drug using oligonucleoside analogues. * Synthesized reference standards for drug testing and evaluation. * Managed pre-clinical and clinical research efforts. * Supervised and led staff in drug manufacturing processes. * Delivered internal and external presentations to government, company, and public groups to promote transparency and effective use of research. * Presented technological advancements, research updates, and industry insights to domestic and global agencies and companies. * Performed detailed calculations to establish manufacturing, construction, and installation standards and specifications with a 100% accuracy rate. * Managed quality assurance programs including on-site evaluations, internal audits, and customer surveys to ensure high-quality standards were met. |
| *Oct 2006–Sep 2009* | **** | **Senior Research Associate**  **University of Zurich, Switzerland**   * Successfully synthesized multiple potential anticancer compounds that interact with human telomeric G-quadruplexes DNA and inhibit telomerase enzyme. * Actively contributed to scientific discussions with peers and management personnel to advance research goals. * Organized crucial paperwork, including participant informed consent waivers and research scope documentation, to ensure compliance with regulations and ethical standards. |
| *Mar 2001–Sep 2006*  **** |  | **Postdoctoral Research Associate**  **Institute of Molecular Cancer Research (IMCR), Zürich University**   * Developed a straightforward and efficient method for synthesizing well-defined bridged interstrand cross-link DNA. * Designed a chemical approach for targeted mutagenesis by leveraging the base excision repair pathway. * Served as a catalyst for growth and expansion in a professional setting. |
| *Feb 2000–Feb 2001* | **** | **Assistant Professor**  **Palestine Polytechnic University, Hebron, Palestine**   * Instructed students in introductory and general chemistry, supervised chemistry laboratories, and taught design and engineering laboratory courses. * Utilized lectures, discussions, and demonstrations to facilitate student learning in Chemistry. * Collaborated with faculty members to enhance course content and improve teaching methodologies. |
| *Nov 1998–Jan 2000* | **** | **Postdoctoral Fellow**  **University of Michigan, Ann Arbor, Michigan, USA**   * Successfully synthesized inhibitors of human immunodeficiency virus reverse transcriptase, including nucleoside and non-nucleoside compounds. |
| *Mar 1996–Oct 1998* | **** | **Postdoctoral Fellow**  **Hoffmann La Roche, Basel, Switzerland**   * Discovered a new antimalarial pharmacophore consisting of phenyl methoxyacrylates linked to an aromatic ring via an olefinic bridge, with potential to be a cost-effective treatment option. * Actively participated in discussions, seminars, and lectures to stay up-to-date on the latest developments in the field of Malaria Research. * Conducted independent research in Malaria for two and a half years. |
| *Mar1993–Dec 1995* | **** | **Research Fellow**  **Swiss Federal Institute of Technology, ETH, Switzerland**   * Prepared mono- and oligomeric acetylenosaccharides up to a fully deprotected octamer, analogues of cellulose. |
| *Oct 1990–Feb 1993* | **** | **Research Fellow**  **University of Zurich, Switzerland**   * Synthesised a variety of polymeric analogues of cellulose: Stereoselective introduction of alkynyl groups into glucose. |
| *Oct 1989–Sep 1990* | **** | **Research Fellow**  **International Center for Chemical and Biological Sciences (ICCBS), Karachi Pakistan**   * Synthesised biologically active compounds from readily available carbohydrates. |
| *Apr 1988–Jun 1989* | **** | **Research Assistant**  **Karachi University, Karachi, Pakistan**   * Synthesis of C-disaccharides by a carbon Ferrier rearrangement. * Teaching general and organic chemistry. |

**ACHIEVEMENT**

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|  | **** | * Pioneered the Halalopathy medical model, a groundbreaking approach to healthcare that offers more effective treatment options. * Designed and synthesized multiple drugs that have demonstrated potential as effective treatments for a variety of medical conditions. * Developed a novel extraction method for isolating biologically active compounds from natural products, contributing to the discovery of new and valuable therapeutic agents. |

### **PUBLICATOINS**

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| **I. Medicine**   * + - 1. ***Jawad Alzeer****.* **(2023). Halalopathy: Integrating Halal Pharmaceuticals for Holistic Healing.** Journal of halal quality and certification. 1 (1) 13 - 19       2. ***Jawad Alzeer,*** Hamid Benmerabet. **(2023). Recognizing Limitations: Overcoming Challenges in Enhancing Health and Preventing Disease.** Eur J Gen Med. 3(1): 1-7       3. ***Jawad Alzeer,*** Hamid Benmerabet. **(2023). The Development of Human Personality: A Comprehensive Overview.** Psychological Disorders and Research6(1) 1-8       4. ***Jawad Alzeer.* (2023) The Role of Buffers in Establishing a Balance of Homeostasis and Maintaining Health.** Am J Med Chem 4(1): 1-6.       5. ***Jawad Alzeer.*** “**Directionality of Chemical Reaction and Spontaneity of Biological Process in the Context of Entropy**”. J Regenr Med Int **2022;** 5 (2): 1-4       6. ***Jawad Alzeer.*** “**Halalopathy: Stimulation of the Immune System Through Enrichment of Potential Energy**”. J Regenr Med Int **2022;** 5 (1): 1-5       7. ***Jawad Alzeer.*** “**Halalopathy: Anxiety and Depression from Logic and energetic Perspectives**”. Am J Biomed Scie & Res **2022;** 16 (3): 378-384  1. ***Jawad Alzeer.*** “**Halalopathy: Role of entropy in the aging process**”. Am J Biomed Scie & Res **2022;** 16 (2): 147-154 2. ***Jawad Alzeer.*** “**Halalopathy: Improving Potential Energy and Minimising Entropy offer an Integrative approach for more Effective Treatment**”. Medicon Medical Sciences 2.4 **2022;** 21-24 3. ***Jawad Alzeer.*** “**Halalopathy:** **Revival of Miraculous Cure and Creation of Favourable Circumstances for Cancer Therapy**”. Medicon Medical Sciences 2.3 **2022;** 21-28. 4. ***Jawad Alzeer***, Fawzi Al-Razem. **Hypotheses: implementation of Le Chatelier`s principle as a potential integrative method to prevent and or cure coronavirus**. J Public Health Emerg. **2021**;5;17 5. ***Jawad Alzeer***. **Permissible Medicine and Rationalization of Halal Pharmaceuticals.** Halalsphere, **2021**; 1(1), 43–52. 6. ***Jawad Alzeer***. **Entropy and potential energy as a key role of halalopathy in disease prevention and cure**. *Longhua Chinese Medicine.* **2020**; 3:20. 7. ***Jawad Alzeer***, Hadeed KA, Basar H, Al-Razem F, Abdel- Wahhab MA, Alhamdan Y. **Cannabis and its permissibility status,** Cannabis and Cannabinoid Research. **2020.** <https://doi.org/10.1089/can.2020.0017> 8. ***Jawad Alzeer***,, Khaled Abou Hadeed. **Halal certification of food, nutraceuticals and pharmaceuticals in the Arab world**. In: Laher I (Ed.). Handbook of Healthcare in the Arab World. **2020** Springer, Switzerland 9. ***Jawad Alzeer***, “**Halalopathy: Science of Trust in Medicine”.** Journal of Integrative Medicine, **2019**, 17,3, 150-154 10. ***Jawad Alzeer***, “**Halalopathic: A new concept in medicine”.** Journal of molecular and genetic medicine, **2018**, 12, 353. 11. ***Jawad Alzeer*,** Rami Arafeh, Kaïs Hussain Al-Gubory, “**Antioxidants in the prevention and treatment of cancer”**, Publisher: *Springer*-Cham, **2017**, 493-521   **II. Chemical Biology & Medicinal Chemistry**   1. Therese Triemer, Alessandra Messikommer, Stella Glasauer, ***Jawad Alzeer*,** Miriam Paulisch, Nathan W. Luedtke, “**Superresolution imaging of individual replication”,** *Proc. Natl. Acad. Sci. USA*, **2018**, *115*, E1366. 2. Anu Naik, ***Jawad Alzeer*,** Therese Triemer, Annu Bujalska, Nathan W. Luedtke, “**Chemoselective modification of vinyl DNA by triazolinediones”,** *Angewandte Chemie, Intl. Ed,* **2017**; 56, 10850-10853 3. Bala Vummidi, F. Noreen, ***Jawad Alzeer***, K. Moelling Nathan Luedtke; “**Photodynamic agents with anti-metastatic activities”**, *ACS Chem. Biol.,***2013**, 8, 1737. 4. Bala Vummidi, ***Jawad Alzeer***, Nathan Luedtke; “**Fluorescent probes for G-quadruplex structures”**, **2013**, *ChemBioChem*. 2013, 14 (5): 540-58. |
| 1. Sarah. Hentschel, ***Jawad Alzeer***, Todor. Angelov, Orlando. D. Schaerer, Nathan. W. Luedtke; “**Synthesis of DNA interstrand crosslinks using a photocaged nucleobase”,** *Angew. Chemie Intl. Ed*., **2012**, 51, 3466. (English) 2. Sarah. Hentschel, ***Jawad Alzeer***, Todor. Angelov, Orlando. D. Schaerer, Nathan. W. Luedtke; “**Synthese von DNA-Interstrang-Crosslinks unter Verwendung einer photoaktivierbaren Nucleobase”.** *Angewandte Chemie*, **2012**, 124, 14, 3523–3526. (German) 3. ***Jawad Alzeer*,**Nathan Luedtke: **pH-Mediated Fluorescence and G-Quadruplex Binding of Amido Phthalocyanines”**, Biochemistry, 2010; 49 (20), pp 4339-4348. 4. Manikandan Paramasivam, Alexandro Membrino, Susanna Cogoi, ***Jawad Alzeer***,Nathan W. Luedtke, and Luigi E. Xodo: “**Cellular uptake and G-4 DNA promoter binding of guanidine-modified phthalocyanines to KRAS/HRAS G-quadruplexes**”*Chem. Commun*, **2010**;46 (4): 625. 5. ***Jawad Alzeer***, Bala Vummidi, Phillipe J C Rothand Nathan Luedtke; “**Guanidinium-Modified Phthalocyanines as High-Affinity G-Quadruplex Fluorescent Probes and Transcriptional Regulator**” *Angew. Chem.,***2009**;48 (49): 9362. (English) 6. ***Jawad Alzeer****,* Dr, Balayeshwanth R Vummidi, Phillipe J C Roth, Nathan W Luedtke (2009); **“Guanidinium-modifizierte Phthalocyanineals Fluoreszenzson den mit** **hoher G-Quadruplex-Affinität** **und als Transkriptions regulatoren”** *Angewandte Chemie*,**2009**;121: 49. 9526 (German) 7. ***Jawad Alzeer***, Orlando Schärer; “**A modified thymine for the synthesis of site-specific thymine-guanine DNA interstrands crosslinks**” *NucleicAcid Research*.**2006**; 34 (16); 4458-4466 8. Ludovic Gillet, ***Jawad Alzeer***, Orlando Schärer; “**Site-specific incorporation of N-(deoxyguanosin-8-yl)-2-acetylaminofluorene (dG-AAF) into oligonucleotides using modified "ultra-mild" DNA synthesiscrosslinks**”*Nucleic Acid Research.***2005**; 33(6); 1961-1969. 9. ***Jawad Alzeer***, Balayeshwanth R. Vummidi, and Nathan W. Luedtke;“**Cell-Permeable Fluorescent Probes with High Affinity for G-Quadruplex DNA and RNA**”Second Second International Meeting on Quadruplex DNA April 18-21, 2009 Camberley-Brown Hotel, Louisville, KY, USA |
| 1. ***Jawad Alzeer****,* Bala Vummid, Phillipe Roth, and Nathan Luedtke, “**Structure-Selective Fluorescent Probes for G-Quadruplex DNA**” Swiss chemical Society, fall meeting Zurich (Switzerland), 09.2008. 2. ***Jawad Alzeer***, Orlando Schärer; “**Synthesis and characterization of site-specific thymine-guanine DNA interstrand crosslinks**”*International roundtable on nucleosides, nucleotides and nucleic acids*. 2006; XVII; PO030. 3. Zahra Aljabari, ***Jawad Alzeer***, Rami Arafeh; “**Catechin detection in callus and in vitro cultures of the eastern strawberry tree, Arbutus Andrachne L., an endangered medicinal tree in Palestine”,** *Global J Res. Med. Plants & Indigen. Med.*Volume 3, Issue 5 | May **2014**| 196–205 4. ***Jawad Alzeer***, Bala Vummidi, Rami Arafeh, Waleed Rimawi, Hatem Saleem, Nathan Luedtke; “**The influence of extraction solvents on the anticancer activities of Palestinian medicinal plants”,** *J. Med. Plant Res.***2014**, Vol. 8, P. 408-415 5. ***Jawad Alzeer****,*Jacques Chollet, Ingrid Heinze-Krauss, Christian Hubschwerlen, Hugues Matile, and Robert Ridley; “**Phenyl Methoxyacrylates: A New Antimalarial Pharmacophore**” *J. Med. Chem*. **2000**; 43 (4); 560-568. 6. ***Jawad Alzeer****,* Jacques Chollet, Christian Hubschwerlen, Hugues Matile, and Robert Ridley; “**Alkoxyacrylates Against Malaria**” *European Patent*Application No. 97111607.4, PCT/EP1998/004162, **1999**(WO/1999/002150). 7. ***Jawad Alzeer***, Jacques Chollet, Ingrid Heinze-Krauss, Christian Hubschwerlen, Hugues Matile, and Robert Ridley, Anne Schmitt Hoffmann; **“methoxyacrylates, anovel class of antimalarial agents**” Hoffmann La Roche, B-169'710; 1999.   **III. Organic Chemistry**   1. Martin S. Seyfried, ***Jawad Alzeer***, Nathan W. Luedtke;**"Molecular Design and Synthesis of a Planar Telomestatin Analogue"**. *Eur. J. Org. Chem*. **2015**. 2. ***Jawad Alzeer****,* Philippe Roth, and Nathan Luedtke; “**An efficient two-step synthesis of metal-free phthalocyanines using a Zn (II) template**” Chem. Commun, **2009**;15, 1970-1971. 3. Nathan. W. Luedtke, ***Jawad Alzeer***, Bala Vummidi; “**Preparation and uses of guanidinium-modified porphyrins and phthalocyanines”**, **2008**, *EuropeanPatent*Patent No. 2010028780. 4. ***Jawad Alzeer***, Raffaello Masciadri, Nadine Nock, and Guy Wassner; “**MOM-protected 3-Hydroxy-5-phenyl-isoxazole: Regioselective Preparation and Synthetic Application**” *Tetrahedron Lett*., **1996**, 37, 6857-6860. 5. ***Jawad Alzeer****,* and Andrea Vasella; “**Oligosaccharide Analogues of Polysaccharides Part 4. Synthesis of a Monosaccharide-Derived Octamer**”*Helv. Chem. Acta*., **1995**, 78, 1219-1237. 6. ***Jawad Alzeer****,* and Andrea Vasella; “**Oligosaccharide Analogues of Polysaccharides Part 2. Regioselective Deprotection of Monosaccharide-Derived Monomers and Dimers**” *Helv. Chem. Acta*.,**1995**, a78, 177-193. 7. ***Jawad Alzeer****,* Chengzhi Cai, and Andrea Vasella; “**Oligosaccharide Analogues of Polysaccharides Part 1. Concept and Synthesis of Monosaccharides-Derived Monomers**”*Helv. Chem. Acta*., **1995**, 78, 242-264. 8. M. S. Shekhani, K. M. Khan, ***Jawad (Al) Zeer*** and W. Voelter; “**Useful Chiral Intermediates from Readily Available Carbohydrates**”*200th National Meeting of the American Chemical Society*, Washington, D. C., September **1990**ORGN 197.   **IV. Food Science**   1. ***Jawad Alzeer****,* Ulrike Rieder, Khaled AbouHadeed. **Good agricultural practices and its compatibility with Halal standards**. Trends in Food Science & Technology, **2020**. <https://doi.org/10.1016/j.tifs.2020.02.025> 2. ***Jawad Alzeer***, Ulrike Rieder; “**The compatibility of Halal with Good Agricultural Practices”**. In preparation 3. ***Jawad Alzeer***, Ulrike Rieder, Khaled Abou Hadeed; “**Rational and practical aspect of Halal and Tayyib in the context of food safety”**. *Trends in Food Science & Technology*, 71, **2018**, 264-267. 4. ***Jawad Alzeer***, Khaled Abou Hadeed; “**Ethanol and its halal status in food industries”**. *Trends in Food Science & Technology*, 58, **2016**, 14-20   **V. Human Science**   1. ***Jawad Alzeer***: “**Swiss Scientific Society for Developing Countries: A Concept of Relationship”;** World Academy of Science, Engineering and Technology, International Science Index, *Humanities and Social Sciences* Vol:10, No:1, **2016**, P. 374-377 |