

Amr Aswad PhD

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Date of Birth: 04/12/1987

Qualifications and Experience

2022-2025 Founder & Chief Executive Officer, Zayt Bioscience GmbH

- *Realised the ambitious mission to create sustainable replacements for planet-destroying palm oil & soybean oils leveraging high tech microbial fermentation of food waste.*
- *Built the business model, R&D strategy & managed the company for two years*
- *Achieved a valuation of €7 million after only 2 rounds of pre-seed funding*

2021 Chief Scientific Officer & Co-founder of an alt-protein start-up

- *Developed an R&D framework for an intelligent food design system*
- *Led the preparation of our investor communication strategy for our research vision*
- *Constructed a hiring strategy for a computational food design platform, alt-protein food lab and sensory research team*

2021-2024 Co-founder and partner of CU.office (Social enterprise co-working space)

- *Invested and contributed to establishing the business and pricing model*
- *Exited with a 12% ROI*
- *Provide management support in all areas of the business, including customer relations & strategy*

2018 to 2021 Einstein International Fellow, Free University Berlin

- *Awarded over €250,000 in funding for my work*
- *Led an independent research program, producing the first rigorous evolutionary analysis in the HHV6 field.*
- *Led a collaboration across six countries with contributors from a variety of institutions and hospitals.*

2018 – 2020 Research Associate, University of Oxford

- *Guest lecturer to first year and final year biology students on Genomics, Virology and Bioinformatics*
- *Continued to provide course content based on my research*
- *Maintained professional relationships after leaving the university*

2015 – 2019 Junior Research Fellow, University of Oxford

- *One of three fellows awarded funding for my work from a pool of 300+ applicants*
- *Designed and executed a research project investigating structural genomic variation in Great tits.*
- *Developed a Python pipeline to analyse a multi-genome dataset to address an novel analytical challenge.*

2011 – 2016 DPhil. Paleovirology, University of Oxford

- *Developed the field-standard bioinformatics approach for genome mining and analysis of ancient viruses*
- *Produced a highly commended doctoral thesis (approved without revision)*
- *Published multiple papers in top journals and books, wrote multiple grants, communicated my research, reviewed papers, mentored students at all levels.*
- *Was one of a handful of scientists globally to establish the field of paleovirology*

2010 – 2011 Postgraduate Research Assistant, Imperial College London

- *Managed a lab-based research project; designed and executed experiments*

- Investigated genetic markers that can be used to distinguish closely related bacterial species

2009 – 2010 **MSc. Advanced Methods in Taxonomy & Biodiversity, Imperial College London**
2006 – 2009 **BSc. (Honours) Molecular Genetics, King's College London**

Scientific Publications

*My research has been covered by a variety of popular science media outlets and scientific blogs, including Nature news, Spektrum.de and many more.

1. **Amr Aswad**, Aris Katzourakis (2012) Paleovirology and virally derived immunity. Trends in Ecology & Evolution 27: 627–636. doi:10.1016/j.tree.2012.07.007.
2. **Amr Aswad**, Aris Katzourakis (2014). The first endogenous herpesvirus, identified in the tarsier genome, and novel sequences from primate rhadinoviruses and lymphocryptoviruses. PLoS Genetics 10 (6) e1004332. doi: 10.1371/journal.pgen.1004332:e1004332.
3. **Amr Aswad**, Aris Katzourakis. (2015). Convergent capture of retroviral superantigens by mammalian herpesviruses. Nature Communications. 24, 6:8299 6 doi:10.1038/ncomms9299.
4. **Aswad, Amr**, Katzourakis Aris (2016) Paleovirology: The Study of Endogenous Viral Elements. In: Scott C. Weaver, Mark Denison, Marilyn Roossinck MV, Editor. Virus Evolution: Current Research and Future Directions. Norfolk: Caister Academic Press. doi.org/10.21775/9781910190234.10
5. **Amr Aswad**, Aris Katzourakis (2017). A novel viral lineage distantly related to herpesviruses discovered within fish genome sequence data. Virus evolution 3 (2), vex016 doi:0.1093/ve/vex016
6. **Amr Aswad**, Aris Katzourakis (2018). Cell-derived viral genes evolve under stronger purifying selection in Rhadinoviruses Journal of Virology 92(19), e00359-18 doi:10.1128/JVI.00359-18
7. **Amr Aswad**, Giulia Aimola, Darren Wight, Pavitra Roychoudhury, Cosima Zimmermann, Joshua Hill, Dirk Lassner, Hong Xie, Meei-Li Huang, Nicholas F. Parrish, Heinz-Peter Schultheiss, Cristina Venturini, Susanne Lager, Gordon C. S. Smith, D. Stephen Charnock-Jones, Judith Breuer, Alexander L. Greninger, Benedikt B. Kaufer. (2020). Evolutionary history of endogenous Human Herpesvirus 6 reflects human migration out of Africa. MBE, msaa190, doi.org/10.1093/molbev/msaa190
8. Xiaoxi Liu, Shunichi Kosugi, Rie Koide, Yoshiaki Kawamura, Jumpei Ito, Hiroki Miura, Nana Matoba, Motomichi Matsuzaki, Masashi Fujita, Anselmo Jiro Kamada, Hidewaki Nakagawa, Gen Tamiya, Koichi Matsuda, Yoshinori Murakami, Michiaki Kubo, **Amr Aswad**, Kei Sato, Yukihide Momozawa, Jun Ohashi, Chikashi Terao, Tetsushi Yoshikawa, Nicholas F. Parrish, Yoichiro Kamatani (2020). Endogenization and excision of human herpesvirus 6 in human genomes. PLoS Genetics 16(8):e1008915. doi:10.1371/journal.pgen.1008915.
9. Giulia Aimola, Georg Beythien, **Amr Aswad**, Benedikt B. Kaufer (2020). Current understanding of human herpesvirus 6 (HHV-6) chromosomal integration. Antiviral Research 176:104720 doi:10.1016/j.antiviral.2020.104720.
10. Darren J. Wight, Giulia Aimola, **Amr Aswad**, Chi-Yu Jill Lai, Christian Bahamon, Karl Hong, Joshua A. Hill and Benedikt B. Kaufer (2020). Unbiased mapping of inherited telomere-integrated human herpesvirus 6 genomes. PNAS 117 (49) 31410-31416, doi.org/10.1073/pnas.2011872117

Communication

English: Native. Arabic: 4/5, German: 2.5/5

A confident and experienced public speaker, I regularly participate on expert panels, present at conferences and other professional events. I have lectured at Oxford University and Freie University Berlin, and have experience engaging with the press both on camera and in written journalism.

Management & Leadership

- Co-founder and board member of a community working space (social enterprise).
- Served on the editorial board of *Frontiers in Microbiology* & *Frontiers in Plant Science*
- Mentoring and supervision of PhD and undergraduate research projects
- Participated in recruitment and interviewing of new team members
- Organised and ran bioinformatic workshops
- Organiser of departmental seminar series
- Managed the procurement process for equipment scientific consumables
- Vice President of St. Hilda's College Graduate body
- Cofounded graduate seminar series at St. Hilda's College Oxford

