

## CURRICULUM VITAE

**Dana Reichmann**

### • EDUCATION

- 2002-2007 **PhD**, Department of Biological Chemistry, Weizmann Inst. of Science, Israel. Scientific discipline: protein-protein interaction, protein network, protein design. Supervisor: Prof. Gideon Schreiber
- 2000-2002 **MSc**, Department of Molecular Genetics, Weizmann Inst. of Science, Israel. Scientific discipline: Bioinformatics, sequence motifs analysis in cell cycle. Supervisor: Prof. Shmuel Pietrokovski
- 1995-1998 **BSc**, Life Science program, Tel Aviv University, Israel.

### • CURRENT POSITION

- 2019- present **Associate Professor**  
Department of Biological Chemistry, Institute of Life Sciences, Hebrew University of Jerusalem, Israel Scientific discipline: Oxidative stress, aging, redox regulation of cell proliferation, proteomics and protein homeostasis.
- 2018-present **Vice president** of the Israel Society for Biochemistry and Molecular Biology (ISBMB) associated with the FEBS society.

### • PREVIOUS POSITIONS

- 2012-2019 **Assistant Professor**, Department of Biological Chemistry, Institute of Life Sciences, Hebrew University of Jerusalem.
- 2008-2012 **Post Doctoral Fellow**, Dept. Molecular, Cellular and Developmental Biology, University of Michigan, Ann Arbor, USA.
- 2016-2018 **President** of the Israel Mass Spectrometry Society
- 2015 **Vice president** of the Israel Mass Spectrometry Society
- 2015-2019 **Management committee member** of European Science Foundation COST Action MB1405, Non-globular proteins from sequence to structure, function and application in molecular physiopathology”.
- 2014-2018 **Management committee member** of European Science Foundation COST Action BM1403, “Native Mass Spectrometry and Related Methods for Structural Biology”
- 2007-2008 **Post Doctoral Fellow**, Dept. Biological Chemistry, Weizmann Inst. of Science, Israel.

### • AWARDS

- 2016 The Krill prize for Excellence in Scientific Research from the Wolf foundation
- 2016 Hannah Farkas-Himsley and Alexander Himsley award for young researcher
- 2012 Golda Meir Excellence Fellowship
- 2009 Human Frontier Science Program Long-Term Fellowship
- 2008 European Molecular Biology Organization Long-Term Fellowship
- 2008 Sara Lee Schupf Postdoctoral Award
- 2005 Aharon Katzir Award

### • FUNDS

**Research awards and funds from the following foundations:** Israel Science Foundation (ISF), ISF-NSFC, US-Israel Binational Science Foundation (BSF), Human Frontier Science Program (HFSP), German-Israel Foundation (GIF), Marie Curie Actions (European commission), Abish-Frenkel Foundation, Lejwa Fund, Israel Science Ministry.

**Ongoing funds from** Israel Science Foundation (ISF)

### • COMMISSIONS OF TRUST

**Reviewer of research papers for:** PNAS, Molecular Cell, Langmuir, Cell Reports, Nature communication, Bioinformatics, Antioxidants and Redox signaling, Redox Biology, Scientific reports, Cell Death & Disease, Journal of American Society of Mass Spectrometry, Biochemistry Journal, PLoS ONE, PLoS Computational Biology, Molecular Biosystems, Proteomics, Chemical Communications, Biotechnology and Bioengineering, Proteins: Structure, Function and Bioinformatics, RSC Advances, Journal of Protein Science, BMC Systems Biology, Journal of Proteomics, Protein Engineering Design & Selection, Frontiers, JoVE

**Reviewer and member in committees for funding agencies:** Human Frontier Science Program, German-Israel Foundation, Israel Science Foundation (ISF), The Fund for Scientific Research (Belgium), Hadassah Joint Research Foundation, Israel Cancer Association (ICRF), Israel Binational Science Foundation (BSF),

**Member of Editorial board:** Since 2013, **Review Editor**, Frontiers in Molecular Biosciences Journal

## • PUBLICATIONS

Citation: **1925, h-index=20**

1. L. Zualy, N. Lahrach, R. Fassler, O. Genest, P. Faller, O. Seneque, Y. Denis, M. Castanie-Cornet, P. Genevaux, U. Jakob, **D. Reichmann**, M. Giuducu-Ortoni, M. Ilbert, Molecular Chaperones Play Central Roles in Preventing Copper Induced Protein Aggregation, 2021, submitted to mBio
2. W. He, G. Yu, T. Li, L. Bai, Z. Xue, Y. Pang, **D. Reichmann**, S. Hiller, L. He, M. Liu, S. Quan. Chaperone Spy protects outer membrane proteins from folding stress via dynamic complex formation, 2021, mBio, in press
3. M. Radzinski, T. Oppenheim, O. Yogev, R. Fassler, W. Breuer, N. Shai, E. Brielle, R. Israeli, I. Arkin, E. Pick, T. Ravid, M. Schuldiner, **D. Reichmann**. CDC48 has a new role in protecting cells under oxidative stress conditions, BioRxiv <https://doi.org/10.1101/733709>
4. R. Fassler, L. Zualy, N. Lahrach, M. Ilbert, **D. Reichmann**, The central role of redox-regulated switch proteins in bacteria, *Front. Mol. Bios*, 2021, in press.
5. M. Radzinski, T. Oppenheim, N. Metanis, **D. Reichmann**. The Cys Sense: Thiol Redox Switches Mediate Life Cycles of Cellular Proteins, 2021, *Biomolecules*, 11(3), 469
6. S. Aramin, R. Fassler, V. Chikne, M. Goldenberg, T. Arian, O. Rimon, L. Kolet, S. Michaeli, and **D. Reichmann**. TrypOX, a novel eukaryotic homologue of redox-regulated chaperone Hsp33 in Trypanosoma brucei, 2020, *Frontiers in Microbiology*, 11:1844
7. M. Mahameed, S. Boukeileh, A. Sulieman, A. Obiedat, O. Darawshi, P. Dipta, A. Rimon, G. McLennan, R. Fassler, **D. Reichmann**, R. Karni, C. Preisinger, T. Wilhelm, M. Huber and B. Tirosh, Pharmacological induction of selective endoplasmic reticulum retention as a novel strategy for cancer therapy, 2020, *Nature Communication*, 11(1):1304
8. H W. Reuter, T. Masuch, N. Ke, M. Lenon, M. Radzinski, V. Van Loi, G. Ren, P. Riggs, H. Antelmann, **D. Reichmann**<sup>1</sup>, L. I. Leichert and M. Berkmen, Utilizing redox-sensitive GFP fusions to detect in vivo redox changes in genetically engineered prokaryotes, 2019, *Redox Biology*, 26:101280
9. E. Kassa, E. Zlorkin-Rivkin, G. Friedman, R. Ramachandran, N. Melamed-Book, A. Weiss, M. Belenky, **D. Reichmann**, W. Breuer, L. Goldenring, J. Goldenring, B. Aroeti, Enteropathogenic Escherichia coli remodels host endosomes to promote endocytic turnover and breakdown of surface polarity, 2019, *PloS Pathogens*, 15(6):e1007851
10. Community paper with multiple authors: G. Masson, ...**D. Reichmann**,...K. Rand, Recommendations for the practice, interpretation and reporting of hydrogen deuterium exchanges mass spectrometry (HDX-MS) experiments, 2019, *Nature Methods*, 16(7):595-602
11. Community paper with multiple authors: C. Iacobucci, .... N. Edinger,... R. Mesika, ... **D. Reichmann**, ... A. Sinz, Cross-linking/Mass Spectrometry: A Community-Wide, Comparative Study Towards Establishing Best Practice Guidelines, 2019, *Anal. Chemistry*, 91(11):6953-6961
12. G. Erdos, B. Meszaros, **D. Reichmann**, Z. Dosztanyi, Large-scale analysis of redox-sensitive conditionally disordered protein regions reveal their widespread nature and key roles in high-level eukaryotic processes, 2019, *Proteomics*, 9(6):e1800070
13. Bramasole L, Sinha A, Gurevich, Radzinski M, Klein Y., Panat N, Gefen E , Jimenez-Morales D, Johnson J , Krogan NJ, Reis N, Rinaldi T, **Reichmann D** , Glickman MH, and Pick E, Proteasome lid bridges mitochondrial stress with Cdc53/Cullin1 rubylation status, 2019, *Redox Biology*, 20, 533-543
14. R. Mesika, **D. Reichmann**, When safeguarding goes wrong: impact of oxidative stress on protein homeostasis in health and neurodegenerative disorders, 2019, *Advances in Protein Chemistry and Structural Biology*, 114, 221-264
15. M. Radzinski and **D. Reichmann**. Variety is a spice of life: How to explore redox-dependent heterogeneity in genomically identical cellular populations, 2018, *Current genetics*, 65(1):301-306

16. M. Radzinski, R. Fassler, O. Yogev, W. Breuer, N. Shai, J. Gutin, S. Ilyas, Y. Geffen, S. Tsytkin-Kirschenzweig, Y. Nahmias, T. Ravid, N. Friedman, M. Shuediner and **D. Reichmann**. Temporal profiling of redox-dependent heterogeneity in single cells. 2018, **eLife**, 7. pii: e37623
17. E. Keinan, A. Abraham, R. Mintz, M. Cohen, **D. Reichmann**, D. Kaganovich, Y. Nahmias. High-Reynolds Microfluidic Sorting of Large Yeast Population Demonstrates Early Age-Dependent Changes in Protein Quality Control. 2018, **Sci. rep**, 8(1):13739
18. R. Fassler, N. Edinger, O. Rimon and **D. Reichmann**. Defining Hsp33's redox-regulated chaperone activity and mapping conformational changes on Hsp33 using hydrogen-deuterium exchange mass spectrometry. 2017, **J Vis Exp**. 2018 Jun 7;(136)
19. **D. Reichmann\***, W. Voth, U. Jakob\*, Maintaining a healthy proteome during oxidative stress, 2017, **Mol Cell**, 69(2):203-213 \*corresponding authors
20. O. Rimon and **D. Reichmann**. Kfits: A software framework for fitting and cleaning outliers in kinetic measurements. (2017). **Bioinformatics**, 34(1):129-130
21. O. Rimon, O. Suss, M. Goldberg, R. Fassler, O. Yogev, H. Amartely, A. Friedler, and **D. Reichmann**. A role for protein plasticity and its connectivity in the inactivation of an intrinsically disordered chaperone and its inter-chaperone crosstalk. (2017). **Antiox Redox Signal**, 27(15):1252, **On the cover**
22. B. Groitl, S. Horowitz, K. Makepeace, EV. Petrotchenko, **D. Reichmann**, JC Bardwell and U. Jakob, Protein unfolding as a switch from self-recognition to high affinity client binding (2015), **Nat. Commun**, 7:10357.
23. O. Suss, **D. Reichmann**, Protein plasticity underlines activation and function of ATP-independent chaperons (2015), **Front. Mol. Bios**, 2:43
24. D. Knoefler, LI. Leichert, M. Thamsen, CM. Cremers, **D. Reichmann**, MJ. Gray, WY. Wholey and U. Jakob. About the dangers, costs and benefits of living an aerobic lifestyle (2014), **Biochem Soc Trans** 42(4):917-21
25. M. Abu-Odeh, T. Bar-Mag, H. Huang, T. Kim, Z. Salah, S. Abdeen, M. Sudol, **D. Reichmann**, S. Sidhu, P. Kim, R. Aqelian. Characterizing WW domain interactions of tumor suppressor WWOX reveals its association with multiprotein networks (2013), **J Biol Chem**, 28;289(13):8865-80
26. **D. Reichmann** and U. Jakob. The roles of conditional disorder in redox proteins (2013), **Curr Opin Struct Biol**, 23(3):436-42
27. N. Brandes, H. Tienson, A. Lindemann, V. Vitvisky, **D. Reichmann**, R. Banerjee, U. Jakob. Time line of redox events in aging postmitotic cells (2013), **eLife**, (2),e00306
28. **D. Reichmann**, Y. Xu, CM. Cremers, M. Ilbert, R. Mittelman, MC. Fitzgerald, U. Jakob, Order out of disorder - Working cycle of an intrinsically unfolded chaperone (2012), **Cell**, 148(5):947-57. The preview article was published in **Cell**, 148(5):843-4
29. N. Brandes\*, **D. Reichmann\***, H. Tienson, L. Leichert, U. Jakob. Using quantitative redox proteomics to dissect the yeast redoxome (2011), **J Biol Chem**, 286(48):41893-903 \*authors contributed equally
30. CM. Cremers, **D. Reichmann**, J. Hausmann, M. Ilbert, U. Jakob. Unfolding of metastable linker region is at the core of Hsp33 activation as a redox-regulated chaperone (2010) **J Biol Chem**. 285(15):11243-51
31. O. Cohavi\*, **D. Reichmann\***, R. Abramovich, A. Tesler, G. Bellapadrona, D. Kokh, R. Wade, A. Vaskevich, I. Rubinstein, G. Schreiber. A quantitative real-time assessment of binding of peptides and proteins to gold surfaces (2010), **Chem-Eur J**, 17(4):1327-36. \*authors contributed equally
32. Rich RL, et al., A global benchmark study using affinity-based biosensors (2009) **Anal Biochem**, 386(2):194-216
33. V. Potapov\*, **D. Reichmann\***, R. Abramovich, D. Filetinski, N. Zohar, D. Ben Halevy, M. Edelman, V. Sobolev, and G. Schreiber. Computational redesign of a protein-protein interface using its modular architecture (2008) **J Mol Biol**, 384(1):109-19, \*authors contributed equally.
34. M. Cohen\*, **D. Reichmann\***, G. Schreiber. Similar chemistry, but different bond preferences for inter versus intra-protein interactions. (2008) **Proteins**, 72(2):741-53. \*authors contributed equally.

35. **D. Reichmann**, Y. Getz, G. Schreiber, On the contribution of water-mediated interactions to protein-complex stability. (2008) *Biochemistry*, 47(3):1051-60. The paper was chosen as a **hot paper** by the editorial board.
36. **D. Reichmann**, O. Rahat, M. Cohen, H. Neuvirth, and Schreiber G. The molecular architecture of protein-protein binding sites. (2007) *Curr Opin Struct Biol*, 17:1-10.
37. **D. Reichmann**, M. Cohen, R. Abramovich, D. Lim, Dym O., N.C.J. Strynadka G. Schreiber. Binding hot spots in the TEM1-BLIP interface in light of its modular architecture. (2007) *J Mol Biol*, 365(3):663-79.
38. **D. Reichmann**, O. Rahat, R. Meged, O. Dym, G. Schreiber. The modular architecture of protein-protein binding interfaces. (2005) *Proc Natl Acad Sci USA*. 102(1):57 The paper was **highlighted on the PNAS cover**.

**Edited Book:**

38. U. Jakob and **D. Reichmann** (Eds). Oxidative Stress and Redox Regulation (2013) Springer, 483 pp.