

## Curriculum Vitae - Meytal Landau

*Date & place of birth:* September 26, 1976; Safed, Israel.  
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*Google Scholar:* [link](#)

### Academic Positions

#### Present

*Since 04/2023* **Lead Scientist** at Deutsches Elektronen-Synchrotron DESY and the Centre for Structural Systems Biology (CSSB), Hamburg, Germany  
*Since 04/2023* **Professor (W3)** at the University Medical Center Hamburg-Eppendorf (UKE), Hamburg, Germany  
*Since 04/ 2023* **Visiting Associate Professor** at the Faculty of Biology at the Technion – Israel Institute of Technology  
*Since 2020* **Visiting Associate Group Leader** at the European Molecular Biology Laboratory (EMBL), Hamburg, Germany

#### Past

*2018-2023* **Associate Professor** at the Faculty of Biology at the Technion – Israel Institute of Technology  
*2012-2018* **Assistant Professor** at the Faculty of Biology at the Technion – Israel Institute of Technology  
*2013-2015* **David and Inez Mayers Career Advancement Chair in Life Sciences Fellow** at the Faculty of Biology at the Technion – Israel Institute of Technology

### Professional Positions

*2019-2020* **Visiting Scientist on one-year Sabbatical**  
 Centre for Structural System Biology (CSSB) at the DESY campus, Hamburg, Germany  
 Affiliation: The European Molecular Biology Laboratory (EMBL)  
 Hosts: Profs. Matthias Wilmanns and Kay Grünewald  
*2007-2012* **Post-doctoral scholar**  
 University of California, Los Angeles, USA.  
 Adviser: Prof. David Eisenberg  
 Subject: Structural investigations of amyloid proteins  
*2002-2007* **Research assistant** (support research with computational aspects)  
 The laboratory of Prof. Uri Seligsohn at the Amalia Biron Research Institute of Thrombosis and Hemostasis, Chaim Sheba Medical Center, Tel-Hashomer and Sackler Faculty of Medicine, Tel-Aviv University, Tel Aviv, Israel

**Education**

- 2002-2007     **Ph.D. Biochemistry**, Tel-Aviv University, Tel Aviv, Israel.  
Adviser: Prof. Nir Ben-Tal.  
Title of Dissertation: 'Computational Investigation of Selected Protein Families'.
- 2000-2002     **M.Sc. Neurobiology** *Summa cum laude*, Tel-Aviv University, Tel Aviv, Israel.  
Adviser: Prof. Nava Zisapel  
Title of M.Sc. Thesis: 'Theoretical modeling of Ca<sup>2+</sup>-calmodulin complexes with peptides and antagonists. The case of the Melatonin-mediated facilitation of the cyclic-nucleotide gated cation channel activity'.
- 1995-2000     **B.Sc. Pharm.** (Bachelor of Pharmacy) *Magna cum laude*,  
The Hebrew University, Jerusalem, Israel.

**Academic Honors and Awards**

- 2020     Daniel Shiran Memorial Prize
- 2020     Hestrin Prize of the Israel Society for Biochemistry and Molecular Biology
- 2019     Juludan Research Prize
- 2019     The Henry Taub Prize for Academic Excellence from the Technion
- 2019     Margaret Oakley Dayhoff Award from the Biophysical Society
- 2018     The Krill Prize for Excellence in Scientific Research from the Wolf Foundation
- 2018     Excellence in Research Award from the Henri Gutwirth Fund for the Promotion of Research
- 2018     Selected as a speaker in the Burroughs Wellcome Fund Future of Biophysics Symposium at the Biophysical Society 62nd Annual Meeting
- 2016     Best Speaker Award; X Jakub K. Parnas Conference Young Scientist Forum "Molecules in the Living Cell and Innovative Medicine"; Wrocław, Poland
- 2013     Alon Fellowship from the Israeli Council for Higher Education
- 2011     MBI Postdoctoral Recognition Award of Excellence, UCLA.
- 2010     American Crystallographic Association Travel Award.
- 2007     Finalist for The Life Science Research Foundation (LSRF) Postdoctoral Fellowship
- 2006     A delegate in the 56th Lindau Meeting of Nobel Laureates and Students in Lindau, Germany.
- 2006     Aharon Katzir Travel Fellowship.
- 2006     The Anat Krauskopf Travel Fund.
- 2006     Award of Excellence in Teaching and Research. Faculty of Life Science, Tel Aviv University.
- 2005     The Iafa Keydar Prize in Cancer Research.
- 2005     Trotzki Fellowship for Graduate Students.
- 2004     Matching Rector Doctoral Fellowship, Tel-Aviv University.
- 2004     Travel award from the Constantiner Institute of Molecular Biology.
- 2004     Award of Excellence in Teaching and Research, Faculty of Life Science, Tel Aviv University.
- 1998     Awards of excellence, School of Pharmacy, The Hebrew University.

**Recent research achievements**

Our lab has pioneered the in-depth study of antimicrobial and virulent bacterial amyloids, revealing a striking diversity in their structures. We've discovered a novel class of cross- $\alpha$  amyloid fibrils in toxic peptides, presenting a unique protein architecture and potential drug targets. Our research suggests structural parallels between enterobacteria-secreted amyloids and human amyloids associated with neurodegenerative diseases, potentially indicating microbial involvement in such conditions. We've also recently identified new types of antibacterial protein fibrils from different organisms, providing insights for the design of improved antibacterial therapeutics. Our work has significantly impacted fields like amyloid studies, protein self-assembly, and microbial virulence. We aim to continue unveiling the intricacies of functional fibrils, contributing to structure-function relationships, action mechanisms, and design approaches.

**Teaching Experience**

- 2014-2023 **Lecturer and Supervisor** in 'Protein Biochemistry'; Technion.  
 2013-2022 **Lecturer and course developer** in 'Science of Drugs'; Technion.  
 2020-2021 **Academic coordinator** in Fundamentals of Drug Development - a course given to graduate students by Teva Pharmaceutical Industries Ltd. in collaboration with the Blavatnik Center for Drug Discovery at Tel Aviv University for graduate students; Technion  
 2005-2006 **Lecturer and course developer** in 'Introduction to Bioinformatics for Graduate Students'; Tel-Aviv University.  
 2004-2005 **Lecturer and course developer** in 'Introduction to Bioinformatics for Biotechnologists'; Tel-Aviv University.  
 2004 **Teaching assistant** in 'Bioinformatics & Perl Programming'; Tel-Aviv University.  
 2003-2004 **Teaching assistant** in 'Bioinformatics'; Tel-Aviv University.  
 2002-2003 **Teaching assistant** in 'Protein Structure and Function'; Tel-Aviv University.  
 2000-2001 **Teaching assistant** in 'Laboratory in Organic Chemistry'; Tel-Aviv University.

**National and International Professional Activities**

- 2020–present Member of the Israeli national committee for synchrotron radiation  
 2020–present Member of an Israeli academy committee assessing the establishment of a National Center for Cryogenic Electron Microscopy  
 2020–2022 Member of the ESRF Beamtime Allocation Panel C10  
 2020–present The [Israeli delegate](#) at the European synchrotron and FEL user organisation (ESUO)  
 2019–2020 Member of the SAB of the Centre for Structural Systems Biology (CSSB), Deutsches Elektronen-Synchrotron DESY, Hamburg, Germany  
 2017–present Member at HZB (Helmholtz-Zentrum Berlin) Scientific Selection Panel C2

**Institutional and Departmental Activities (Technion and EMBL)**

- 2020-present Academic Head of the Technion Center for Structural Biology (TCSB)  
 2020-2021 Member of the Technion Standing Committee on Academic Studies  
 2020 Member of the EMBL Interdisciplinary Postdocs (EIPOD) selection committee  
 2020- 2023 Faculty Representative at the Faculty of Chemical Engineering, Technion  
 2018-2023 Member of the Technion Internal Review Committee for Research Using Biohazard Agents  
 2018-2019 Faculty Consultant, Biochemical Engineering undergraduate studies, Technion  
 2017-2018 Faculty Consultant, Molecular Biochemistry and Biochemical Engineering undergraduate studies, Technion  
 2017-2018 Coordinator of Faculty Seminars, Biology, Technion  
 2013-2019 Member of the Graduate Studies Committee, Biology, Technion  
 2015-2016 Biology Representative at the Faculty of Chemistry Council Meetings, Technion  
 2013-2014 Faculty of Biology, Secretary of the Board, Technion

**Research Grants****Active Grants:**

- 2023-2028 ERC Consolidator Grant; FuncAmyloid  
 Project title: Structure, Function and Regulation of Antimicrobial and Virulent Amyloids at High-resolution  
 2023-2025 Forschungskoooperation Niedersachsen – Israel (Research Cooperation Lower Saxony – Israel), Volkswagenstiftung

- Project title: Antimicrobial Amyloid Peptides in Infectious Diseases: Dissecting Mechanisms of Cell Toxicity at High-resolution.  
Principal investigators: Markus Zweckstetter and Meytal Landau
- 2023-2024 Cure Alzheimer's Foundation
- Project title: Structural Mimicry in Microbial and Antimicrobial Amyloids Connected to Neurodegenerative Diseases  
Principal Investigator: Meytal Landau
- 2020-2025 Israel Science Foundation, Individual Research Grant; Grant No. 2111/20.  
Project title: Structure-Function-Fibrillation Relationships in Fibril-forming Antimicrobial Peptides. Principal investigator: Meytal Landau

**Previous Grants:**

- 2020-2022 Israel-Hamburg Cooperation, Hamburg Behörde für Wissenschaft, Forschung und Gleichstellung (BWFG).  
Project title: Amyloids - friends or enemies in the fight against pathogens.  
Principal Investigators: Meytal Landau, Kay Grünewald
- 2018-2021 Israel Ministry of Science, Technology & Space; Grant No. 3-15517  
Project title: Amyloids in the Microbiome
- 2018-2022 U.S.-Israel Binational Science Foundation (BSF); Grant No 2017280  
Project title: Diverse Functions of Amyloids from Pathogenic Microbes Encoded in Novel Fibril Structures  
Principal Investigators: Meytal Landau, Matthew R. Chapman.
- 2016-2020 Israel Science Foundation, Individual Research Grant; Grant No 560/16  
Project title: An Extension of the Amylome revealed by the Virulent Staphylococcus aureus Phenol Soluble Modulins (PSMs).
- 2015-2020 DIP - Deutsch-Israelische Projektkooperation  
Project title: Structural and Functional Dynamics of Na<sup>+</sup>/H<sup>+</sup> Antiporters  
Principal Investigators: Meytal Landau, Hartmut Michel, Klaus Fendler, Elena Olkhova, Heinz-Jürgen Steinhoff, Etana Padan, Nir Ben-Tal, Assaf Friedler
- 2018 The Henri Gutwirth Fund for the Promotion of Research  
Project title: Amyloids as Antimicrobial Drugs and Drug Targets with a Novel Mechanism of Action
- 2017-2018 University of Michigan – Israel Partnership for Research; Collaborative Research Grant. Project title: New Structure-activity Paradigms for Microbial Functional Amyloids  
Principal Investigators: Meytal Landau, Matthew R. Chapman.
- 2013-2018 I-CORE Program of the Planning and Budgeting Committee and The Israel Science Foundation  
Center of Excellence in Integrated Structural Cell Biology; Grant No 1775/12  
Project title: Characterizing Regulatory Principles in Platelet Surface Receptors via X-ray Crystallography and Small-molecule Design.
- 2013-2017 Support for training and career development of researchers (Marie Curie) CIG. Seventh framework program, Single Beneficiary  
Project title: Platelet Receptors
- 2014-2016 U.S.-Israel Binational Science Foundation (BSF) Start-Up Research Grant  
Project title: Functional Microbial Amyloids: Do They Share the Amyloid  $\beta$ -spines of Human Aggregation Diseases?  
Principal investigators: Meytal Landau and David Eisenberg

- 2014-2015 J. and A. Taub Biological Research  
Project title: Functional Microbial Amyloids: Do They Share the Amyloid  $\beta$ -spines of Human Aggregation Diseases?
- 2014-2015 Mallat Family Research Fund  
Project title: Platelets and cancer: The role of the platelet-activating receptor CLEC-2.
- 2013-2015 Eliyahu Pen Fund for Scientific and Medical Research  
Project title: Platelet-Surface Receptors.
- 2010-2015 P50 NIH center grants awarded to UCLA Alzheimer's Disease Research Center.  
Project title: Design and Structure of Drugs against Alzheimer's disease. Principal Investigator: David Eisenberg; Investigator: Meytal Landau

### **Invited conference talks**

- 03/2023 Macromolecular Structures - Interactive Meeting on Crystallisation, Fibrillation and Beyond, Leipzig, Germany. CANCELLED
- 02/2023 Symposium "Anti-infective Strategies", Hamburg Academy of Sciences, Greifswald, Germany.
- 01/2023 CCP4 Study Weekend, EMCC, Nottingham, UK.
- 11/2022 Meeting of Northern Universities in Structural Bacteriology, Hamburg, Germany
- 11/2022 International Workshop on "Interdisciplinary life of microbes: from single cells to multicellular aggregates". MPI-PKS Dresden, Germany.
- 09/2022 The first conference on protein aggregation in Leuven, Belgium
- 09/2022 The 19th Horizons in Molecular Biology Symposium, Göttingen, Germany.
- 09/2022 Workshop on coiled-coil, fibrous & repeat proteins, Alpbach, Austria.
- 06/2022 International N.I.C.E Conference on Bioinspiration and Biobased Materials, Nice, France.
- 06/2022 PFSaM Conference, Saskatchewan, Canada.
- 04/2022 Israel Crystallographic Association Annual Meeting; Weizmann Institute, Israel
- 09/2021 CECAM Workshop: Innovative strategies for neurodegenerative diseases: perspective from molecular simulation, machine learning and experiment, Pisa, Ital (hybrid).
- 04/2021 Workshop "Strategy for future EMBL research infrastructures in the Life Sciences in Hamburg" (virtual).
- 03/2021 DESY Photon Science Users Meeting 2021 (virtual).
- 11/2020 The 3rd World Laureates Forum, Science and Technology, for the Common Destiny of Mankind (worldwide, based in Shanghai, China; virtual).
- 10/2020 PETRA IV workshop - Soft Matter, Health, and Life Science (European, virtual).
- 10/2020 NICE-2020 International Conference on Nature Inspires Creativity Engineers, Nice, France (keynote) COULD NOT ATTEND
- 09/2020 EMBL Retreat (virtual).
- 09/2020 The 14th North German Biophysics Meeting (virtual).
- 06/2020 Gordon Research Conference (GRC) on Intrinsically Disordered Proteins (IDPs): 'Functional Roles of Disorder in Biological Systems', Les Diablerets, Switzerland. POSTPONED
- 02/2020 Bilateral Workshop of The Israel Academy of Sciences and Humanities and The Royal Society on: "The Molecular Fabric of Life", Jerusalem, Israel.
- 01/2020 EMBL Structural Biology Retreat, Hamburg, Germany
- 01/2020 The 13th North German Biophysics Meeting, Research Center Borstel, Germany (keynote)
- 11/2019 Third Duesseldorf-Juelich Symposium on Neurodegenerative Diseases: "Aggregation, Fibrils, Autophagy, Prions, and Biomarkers" Duesseldorf, Germany.
- 10/2019 Nanomedicine Italy-Israel binational meeting, Tel Aviv University, Israel.
- 06/2019 FASEB SRC: "The Protein Aggregation Conference: From Structure to In Vivo Sequelae conference on Protein Aggregation", Snowmass, Colorado, USA.

- 03/2019 The Biophysical Society Meeting, Baltimore, USA (Margaret Oakley Dayhoff Awardee lecture).
- 02/2019 Third Ulm Meeting on “Biophysics of Amyloid Formation”. Ulm University, Germany
- 11/2018 The nanoBioMed2018 International Conference, Barcelona, Spain.
- 11/2018 The 25th Rothschild School in Life Sciences on “SIGNAL TRANSDUCTION”. The Institute for Advanced Studies at the Hebrew University (International meeting).
- 09/2018 The 4th NGP-NET symposium on non-globular proteins and the 7th Amyloid Disease Annual Meeting (ADAM). Druskininkai, Lithuania.
- 09/2018 Current Challenges in Amyloid Diseases: From Molecular Mechanisms to the Cell and Clinics. Dead Sea, Israel (International conference)
- 03/2018 UK-Israel Synergy program on the theme: “Protein misfolding in ageing and neurodegeneration: from basic biology to drug development”. London, England.
- 03/2018 High-Resolution Protein Structures: Understanding Human Diseases. Ben-Gurion University of the Negev, Israel (International conference).
- 02/2018 Burroughs Wellcome Fund Future of Biophysics Symposium at the Biophysical Society 62nd Annual Meeting. San Francisco, USA.
- 02/2018 The 83rd Annual Meeting of the Israel Chemical Society, Tel Aviv, Israel.
- 02/2018 UK-Israel SYNERGY Program Meeting, Edinburgh, Scotland.
- 12/2017 Molecular Perspectives on Protein-Protein Interactions, Eilat, Israel (International conference).
- 09/2017 Improving Biomaterials Through Better Understanding of their Assembly Mechanisms. Weizmann Institute of Science, Israel.
- 09/2017 42nd Congress of The Federation of the European Biochemical Societies (FEBS). Jerusalem, Israel.
- 09/2017 The 6th Michigan-Israel Partnership for Research and Education Annual Scientific Symposium: The Future of Health: from Molecules to Machines. Technion’s Rappaport Faculty of Medicine, Israel.
- 06/2017 FASEB SRC “Protein Aggregation in Health and Disease”, Steamboat Springs, Colorado, USA.
- 06/2017 14th Annual Meeting of The Medicinal Chemistry Section - Israel Chemical Society, Weizmann Institute of Science, Israel
- 05/2017 19th Israeli Bioinformatics Symposium, Weizmann Institute of Science, Israel.
- 04/2017 Israel Society for Microbiology Annual Meeting – NGMS next generation microbiology scientists; Agricultural Research Organization, Volcani Center, Israel.
- 02/2017 8th ILANIT / FISEB (Federation of all the Israel Societies for Experimental Biology) conference; Eilat, Israel.
- 07/2016 X Jakub K. Parnas Conference Young Scientist Forum “Molecules in the Living Cell and Innovative Medicine”; Wrocław, Poland.
- 06/2016 Israel Crystallographic Association 2016 Annual Meeting, Tel-Aviv University, Israel.
- 02/2014 8th ILANIT / FISEB (Federation of all the Israel Societies for Experimental Biology) conference; Eilat, Israel.
- 05/2011 Israel Crystallographic Association 2011 Annual Meeting, Bar-Ilan University, Israel.
- 03/2011 Pittcon 2011, Atlanta, Georgia, USA.

### **Patents**

1. Anti-biofilm composition.; PCT Patent Application No. PCT/IL2019/051190. US Provisional Application No. 62/754,024; Filed on 1 November 2018. Inventors: Meytal Landau, Sergei Perov, Ofir Lidor, Nir Salinas, Nimrod Golan and Dieter Willbold.

2. Antimicrobial Peptides and Uses Thereof. PCT Patent Application No. PCT/IL2017/050936. International App. No. WO 2018/037408 filed on August 2016 and published on March 1, 2018. Inventors: Meytal Landau, Nir Salinas and Asher Moshe.
3. Pharmacophores for Amyloid Fibers Involved in Alzheimer's Disease. US Patent App. No. 61/507, 810; International App. No. PCT/US2012/046945, Filing on Jul. 2011; [Pub. No. WO/2013/010176, Jan 2013](#). Inventors: David S. Eisenberg, Lin Jiang, Meytal Landau and Cong Liu.

### **Publications in chronological order**

Names of Landau lab members are underlined

1. N. Rosenberg, M. Landau, J. Luboshitz, G. Rechavi and U. Seligsohn. A novel PHE171CYS mutation in integrin  $\alpha$ IIb causes Glanzmann Thrombasthenia by abrogating  $\alpha$ IIb $\beta$ 3 complex formation. *J Thromb Haemost* 2: 1167-1175, 2004.
2. O. Ashur-Fabian, A. Avivi, L. Trakhtenbrot, K. Adamsky, M. Cohen<sup>§</sup>, G. Kajakaro, A. Joel, N. Amariglio, E. Nevo and G. Rechavi. Evolution of p53 in hypoxia-stressed Spalax mimics human tumor mutation. *PNAS* 101: 12236-12241, 2004. <sup>§</sup>Maiden name.
3. A. Vysokovsky, R. Saxema, M. Landau, A. Zivelin, R. Eskaraev, N. Rosenberg, U. Seligsohn and A. Inbal. Seven novel mutations in Factor XIII A-subunit gene causing hereditary Factor XIII deficiency in 10 unrelated families. *J Thromb Haemost* 2: 1790-1797, 2004.
4. A. Zivelin, T. Ogawa, S. Bulvik, M. Landau, J.R. Toomey, J. Lane, U. Seligsohn and D. Gailani. Severe factor XI deficiency caused by a Gly555 to Glu mutation (factor XI-Glu555): a cross-reactive material positive variant defective in factor IX activation. *J Thromb Haemost* 2: 1782-1789, 2004.
5. Y. Fromovich-Amit, A. Zivelin, N. Rosenberg, H. Tamary, M. Landau and U. Seligsohn. Characterization of mutations causing factor VII deficiency in 61 unrelated Israeli patients. *J Thromb Haemost* 2:1774-1781, 2004.
6. M. Landau, S.J. Fleishman and N. Ben-Tal. A Putative mechanism for down-regulation of the catalytic activity of the EGF receptor via direct contact between its kinase and C-terminal domains. *Structure* 12: 2265-75, 2004.
7. M. Mark-Danieli, N. Laham, M. Kenan-Eichler, A. Castiel, D. Melamed, M. Landau, N.M. Bouvier, M.J. Evans and E. Bacharach. Single point mutations in the zinc finger motifs of the human immunodeficiency virus type 1 nucleocapsid alter RNA binding specificities of the gag protein and enhance packaging and infectivity. *J Virol* 79: 7756-67, 2005.
8. Y. Fromovich-Amit, A. Zivelin, N. Rosenberg, M. Landau, R. Jean-Philippe and U. Seligsohn. Of four mutations in the factor VII gene in Tunisian patients, one novel mutation (Ser339Phe) in three unrelated families abrogates factor X activation. *Blood Coagul Fibrinolysis* 16: 369-374, 2005.
9. M. Landau, I. Mayrose, Y. Rosenberg, F. Glaser, E. Martz, T. Pupko and N. Ben-Tal. ConSurf 2005: the projection of evolutionary conservation scores of residues on protein structures. *Nucleic Acids Res* 33: W299-W302, 2005.
10. N. Rosenberg, H. Hauschner, H. Peretz, R. Mor-Cohen, M. Landau, B. Shenkman, G. Kenet, B.S. Coller, A. A. Awidi and U. Seligsohn. A 13bp Deletion in  $\alpha$ IIb Gene is a Founder Mutation that Predominates in Palestinian Arab Patients with Glanzmann Thrombasthenia. *J Thromb Haemost* 3: 2764-72, 2005.
11. H. Peretz, N. Rosenberg, M. Landau, S. Usher, E.J.R. Nelson, R. Mor-Cohen, D.L. French, B.W. Mitchell, S.C. Nair, M. Chandy, B.S. Coller, A. Srivastava and U. Seligsohn. Molecular diversity of Glanzmann thrombasthenia in southern India: new insights into mRNA splicing and structure-function correlations of  $\alpha$ IIb $\beta$ 3 integrin (ITGA2B, ITGB3). *Human Mutation* 27:359-369, 2006.

12. N. Rosenberg, S. Lalezari, M. Landau, B. Shenkman, U. Seligsohn and S. Izraeli. Trp207Gly in platelet glycoprotein Ibalpha is a novel mutation which disrupts the connection between the leucine-rich repeat domain and the disulfide loop structure and causes Bernard-Soulier syndrome. *J Thromb Haemost* 5(2):378-86; 2006.
13. M. Landau and N. Zisapel. The low affinity binding of melatonin to calmodulin: use of computational methods to explain its physiological relevance. Melatonin: from molecules to therapy, S.R. Pandi-Perumal and D.P. Cardinali. Hauppauge, NY: Nova Science Publishers, Inc. 2006.
14. M. Zucker, A. Zivelin, M. Landau, O. Salomon, G. Kenet, F. Bauduer, M. Samama, J. Conard, H. Denninger, A.B. Hani, M. Berruyer, D. Feinstein, U. Seligsohn. Characterization of seven novel mutations causing FXI deficiency. *Haematologica* 92(10):1375-80; 2007.
15. C. Bozzao, V. Rimoldi, R. Asselta, M. Landau, R. Ghiotto, M.L. Tenchini, R. De Cristofaro, G. Castaman and S. Duga. A novel factor XI missense mutation (Val371Ile) in the activation loop is responsible for a case of mild type II factor XI deficiency. *FEBS J.* 274: 6128–6138; 2007.
16. R. Mor-Cohen, N. Rosenberg, H. Peretz, M. Landau, B.S. Coller, A. Awidi, U. Seligsohn. Disulfide bond disruption by a beta3-Cys549Arg mutation in six Jordanian families with Glanzmann thrombasthenia causes diminished production of constitutively active alphaIIb beta3. *J Thromb Haemost.* 98(6):1257-65; 2007
17. M. Landau, K. Hertz, E. Padan and N. Ben-Tal. Model structure of the Na<sup>+</sup>/H<sup>+</sup> exchanger 1 (NHE1) of the human heart: functional and clinical implications. *J Biol Chem.* 282(52):37854-63; 2007.
  - The paper was ranked "must read" in [Faculty of 1000 Biology](#).
18. M. Landau and N. Ben-Tal. Dynamic Equilibrium between Multiple Active and Inactive Conformations Explains Regulation and Oncogenic Mutations in ErbB Receptors. *Biochim Biophys Acta. Reviews on cancer* 1785(1):12-31; 2008.
19. R. Mor-Cohen, N. Rosenberg, M. Landau, J. Lahav and U. Seligsohn. Specific cysteines in beta3 are involved in disulfide bond exchange-dependent and -independent activation of alphaIIb beta3. *J Biol Chem.* 283(28):19235-44; 2008.
20. M. Zucker, A. Zivelin, M. Landau, N. Rosenberg and U. Seligsohn. Three residues at the interface of factor XI monomers augment covalent dimerization of factor XI. *J Thromb Haemost.* 7(6):970-5; 2009.
21. J.W. Wiltzius\*, M. Landau\*, R. Nelson\*, M.R. Sawaya\*, M.I. Apostol, L. Goldschmidt, A.B. Soriaga, D.Cascio, K. Rajashankar and D. Eisenberg. Molecular mechanisms for protein-encoded inheritance. *Nat. Struct. Mol. Biol.* 16(9) 973-8; 2009. \*Authors contributed equally
22. H. Hauschner, M. Landau, U. Seligsohn, and N. Rosenberg. A unique interaction between alphaIIb and beta3 in the head region is essential for outside-in signaling related functions of alphaIIb beta3 integrin. *Blood* 115(22):4542-50; 2010.
23. A. Laganowsky, J.L.P. Benesch M. Landau, L. Ding, M.R. Sawaya, D. Cascio, Q. Huang, C.V. Robinson, J. Horwitz, and D. Eisenberg. Crystal structures of truncated alpha and alphaB crystallins reveal structural mechanisms of polydispersity important for eye lens function. *Prot. Sci.* 19(5):1031-43; 2010.
24. M. Landau and N. Rosenberg. Molecular Insight into Human Platelet Antigens: Structural and Evolutionary Conservation Analyses offer New Perspective to Immunogenic Disorders. *Transfusion* 51(3):558-69; 2010.
25. M. Landau, M.R. Sawaya, K.F. Faull, A. Laganowsky, L. Jiang, S.A. Sievers, J. Liu, J.R. Barrio and D. Eisenberg. Towards a Pharmacophore for Amyloid. *PLoS Biology* 9(6): e1001080; 2011.



26. M. Schushan, M. Landau, E. Padan and N. Ben-Tal. Two conflicting NHE1 model-structures: Compatibility with experimental data and implications for the transport mechanism. *J. Biol. Chem.* 286, 1e9; 2011. *Letter*.
27. JP. Colletier\*, A. Laganowsky\*, M. Landau\*, M. Zhao\*, A.B. Soriaga\*, L. Goldschmidt, D. Cascio, M.R. Sawaya, and D. Eisenberg. Molecular Basis for Amyloid-beta Polymorphism. *PNAS* 108(41):16938-43; 2011. \*Authors contributed equally
28. A. Laganowsky, C. Lui, M.R. Sawaya, J.P. Whitelegge, J. Park, M. Zhao, A. Pensalfini, A.B. Soriaga, M. Landau, P.K. Teng, D. Cascio, C. Glabe, D. Eisenberg. Atomic View of a Toxic Amyloid Small Oligomer. *Science* 335(6073):1228-31; 2012.
29. R. Mor-Cohen, N. Rosenberg, Y. Einav, E. Zelzion, M. Landau, W. Mansour, Y. Averbukh and U. Seligsohn. Unique disulfide bonds in the epidermal growth factor (EGF) domains of  $\beta 3$  affect the structure and function of  $\alpha \text{IIb}\beta 3$  and  $\alpha \text{v}\beta 3$  integrins in a different manner. *J Biol Chem* 16;287(12):8879-91; 2012.
30. R. Loewenthal, N. Rosenberg, R. Kalt, R. Dardik, M. Landau, V. Yahalom, O. Avishai, O. Frenkel, E. Gazit, D.M. Steinberg, S. Lipitz, O. Salomon. Compound heterozygosity of HLA-DRB3\*01:01 and HLA-DRB4\*01:01 as a potential predictor of fetal neonatal alloimmune thrombocytopenia. *Transfusion* 53(2):344-52; 2013.
31. L. Jiang, C. Liu, D. Leibly, M. Landau, M. Zhao, M. Hughes, and D. Eisenberg. Structure-based discovery of fiber-binding compounds that reduce the cytotoxicity of amyloid beta. *eLife* 2:e00857; 2013.
32. N. Gal, A. Morag, S. Kolusheva, R. Winter, M. Landau, R. Jelinek. Lipid Bilayers Significantly Modulate Cross-Fibrillation of Two Distinct Amyloidogenic Peptides. *J. Am. Chem. Soc* 135(36):13582–13589; 2013.
33. K. Kondapalli, A. Hack, M. Schushan, M. Landau, N. Ben-Tal, and R. Rao. Functional evaluation of autism-associated mutations in NHE9. *Nat Commun* 4: p. 2510; 2013
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