Poul Nissen

Vice-Dean for Research
Aarhus University, Faculty of Natural Sciences
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Danish Research Institute of Translational Neuroscience - DANDRITE
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Education
1993-1997 PhD Molecular and Structural Biology, Aarhus University (AU)
1987-1993 MSc Chemistry / protein crystallography, AU

Employment
2024- Vice-Dean for Research and Collaborations, Aarhus University, Faculty of Natural Sciences
2006-2023 Professor of Protein Biochemistry, AU-Dept. Molecular Biology and Genetics (AU-MBG)
2002-2006 Assoc. professor, AU-MBG
2000-2004 DFF Ole Rømer fellow, AU-MBG
1999- 2000 Postdoctoral associate with Prof. TA Steitz, Yale (Nobel Prize 2009)
1997-1999 DFF Postdoc fellow with Prof. TA Steitz, Yale (Nobel Prize 2009)

Appointments
2024- Affiliated Researcher, DANDRITE, Nordic-EMBL Partnership for Molecular Medicine
2019-2024 Director, EMBION Danish National CryoEM facility (NUFI)
2018-21 Speaker, Nordic EMBL Partnership for Molecular Medicine
2013-2023 Director, DANDRITE, Nordic-EMBL Partnership for Molecular Medicine
2007-2017 Director, PUMPkin CoE, Danish National Research Foundation

Committees, boards (recent)
2024- National committees e.g. for quantum technologies, defense technologies, ESS science as Vice-Dean
2023-2026 EMBL and EMBC Council
2023-- HiLIFE Council, Helsinki Univ.
2023- SAB, Life Sciences Center, Vilnius Univ
2022- Advisory Board, Aarhus Institute of Advanced Studies
2022- Science Policy Committee, Royal Danish Academy for Science and Letters
2021- NNF International Research Leader Grants
2021- Carlsberg Foundation Research Prize committee
2021 International Research Infrastructure review (EMBL/EMBC), Czech Republic
2018-20 PoC & BAA panels, BII/Novo Nordisk Foundation
2018- SAB, CIBSS Univ Freiburg & HiLIFE Helsinki
2017 ERC SyG panel, 2010 ERC LS1 panel
2016-22 SAC, EMBL

2016-19 SAB, Max-Planck Institute of Biophysics Frankfurt
2015-16 Board of Scientific Counselors, NIH-NINDS
2011- SAB, CSSB Hamburg
2008-16 SAB, NNF-CPR Univ Copenhagen

Site visit reviews: 9 EMBL sites/units 2015-2024 (4 times chair), MRC-LMB 2021, VIB-CSB 2020 (chair), KU-Bio 2017
Reviewer, e.g. CA-NSERC, NL-NWO, SE-VR, FR-INSERM/ANR, UK-MRC/BBSRC/RS/Wellcome, ES-Caixa, EMBO, BIF, ERC
2002– >48 PhD dissertation committees (e.g. Aarhus, Copenhagen, Yale, Paris, Leuven, Göteborg, Stockholm, Cambridge, Helsinki, Nijmegen, Trondheim, Sydney, Frankfurt)
2005– >30 full professor reviews (e.g. DK, NO, SE, UK, GE, NL, US, AUS)

Danish Research Agencies
2024- NUFI committee, Danish Research Infrastructure
2024- ESS-DMSC committee
2024- National Committee for Defense Technology, Denmark
2021-22 Founding chair, DANEMO support center for EMBL/EMBO
2017-20 Coordinator, Nordic-EMBL-ESS working group
2016 Coordinator, Danish ESS Lighthouse for Structural Biology
2010-11 Research infrastructure roadmap

Aarhus University
2024- Research committee, AU
2024- Research committee, AU-NAT (chair)
2013-2023 Research committee, AU-iNANO
2011-2023 Management committee, AU-MBG
2005-2023 Research committee, AU-MBG

Editorial Activities
2023- Guest editor, Biophysics Biochimica Acta Special Issue on P-type ATPases
2007- Editorial Advisory Board, EMBO journals
2000- Reviewer for all major journals, 20-25 reviews per year

Organisation of international conferences (selected)
2024, 2022, 2021 Annual Symposium of the DANEMO research support center
2023 Inaugural Symposium of Aarhus University Structural Biology and Biophysics Network (AUSBI)
2022 Organizer, FEBS course integrative structural biology, Spetses, Greece
2019 Co-organizer ATP1A3 and Alternating Hemiplegia of Childhood, Iceland
2015, 2022 Organizer, Nordic-EMBL Partnership for Molecular Medicine conference
2014 Chair GRC Membrane Transport Proteins
2013 Co-organizer, Benzon Symposium Structure Function and Dynamics of Membrane Proteins
2009 Co-founder Pcovery Aps
2008 Co-organizer 12th Na,K-ATPase and Related ATPases of P-type

Invited lectures (recent)
2024 Nordic Neuroscience IV, Copenhagen, plenary lecture
2023 RESOLUTE Consortium Conference, Vienna, keynote lecture
2023 Aarhus Institute of Advanced Studies 10-year anniversary Symposium, Aarhus, keynote lecture
2023 Brain in Flux Conference, Porto, Portugal, invited lecture
2023 University of Copenhagen, Dept. Plant and Environmental Studies
2023 Nordic EMBL Partnership Symposium, Helsinki University
2023 Taras Shevchenko National University of Kyiv, Ukraine (online)
2023 Brain Research Institute, Niigata University, Japan
2023 Nagoya University, Japan, departmental seminar series
2023 Argo Bio Studio Biotech Investors, Paris (online)
2022 IRB Seminar, Barcelona
2022 Alternating Hemiplegia of Childhood and other ATP1A3 Related Disorders, Edinburgh
2022 International Transmembrane Transporter Society Conference, Copenhagen
2022 16th International Conference on Na,K-ATPase and Related ATPases, Banff, Canada
2022 Gordon Research Conference “Membrane Transport Proteins”, Barcelona
2022 ISBUC Annual Meeting, University of Copenhagen
2022 Dept. Molecular Biophysics and Biochemistry, Yale University
2022 ESS/MAX IV/SCILIFE LAB Integrative Structural Biology Seminar Series
2022 Matchpoint Conference “Our Fascinating Brain”, Aarhus
2022 Gordon Research Conference ”Ligand Recognition and Molecular Gating”, Il Ciocco –Barga, Italy
2022 iNANO 20-year Anniversary Symposium, Aarhus University

2022 Neuroscience Lectures, University of Copenhagen

Other
2022- Research Policy Committee, Royal Danish Academy for Science and Letters (2023-24 chair)
2017- Executive board, Videnskabsklubben
2011-2016 School board Risskov Skole (chair 2014-16)
2005-11 Board, Danish Society for Biochemistry and Molecular Biology

Honors and Awards
2023-2026 Visiting professor of Niigata University, Japan
2021 Anders Jahre Prize for Medical Research
2018 Carlsberg Foundation Research Prize
2017 Novo Nordisk Prize
2017 Distinguished Chair NTU Taiwan
2016 Knight of the Order of Dannebrog
2016 Adjunct Professor, Univ Copenhagen
2016 Dir. Ib Henriksen's Foundation Research Prize
2016 Gregori Aminoff Prize, Royal Swedish Academy of Sciences
2014 Elected fellow, Academy of Technical Sciences in Denmark (ATV)
2013 Adjunct Professor, Aalborg Univ
2010 AU, Holst-Knudsen Prize
2009 ERC AdG BIOMEMOS
2008 Elite Researcher Prize, Danish Ministry of Research & Innovation
2008 Elected fellow, Royal Danish Academy for Science and Letters
2006 Anders Jahre Prize for Young Researchers, Norway
2006 Hede Nielsen Prize for Young Researchers
2006 Elected fellow, EMBO
2005 Hallas-Møller Stipend, Novo-Nordisk Foundation
2002 Newcombe-Cleveland Prize, AAAS
2001 EMBO Young Investigator
1997 PhD Gold Medal, Danish Academy of Natural Sciences

Supervision/mentoring
40+ BSc/MSc students graduated, 29 PhD students graduated, 28 postdocs finished
https://dandrite.au.dk/people/alumni/alumni-from-group-leaders/alumni-from-nissen-group
Previous PhD/postdoc include 2 professors at KU, DTU (male); 17 assist/assoc prof (8 female, 9 male) at AU (4), AUH, KU (3), Tsinghua, Hamburg (2), Dallas, Montpellier, Oxford, Paris (2), Vilnius
2 biotech founders, 19 scientists/team leaders in industry/startup, 3 in public management, 10+ postdoc/scientists

Industry/SME collaborations past 10 years
Funded projects with Novo Nordisk, H. Lundbeck, AstraZeneca, Roche, Linkster, Orion, Ono Pharmaceuticals, Muna Therapeutics, Salipro Biotech

Major funding (own research, current)
2024-2027 Novo Nordisk Foundation Distinguished Innovator
2020-2025 Lundbeck Foundation professorship (no-cost extension to 2026)
2019-2024 Novo Nordisk Foundation Distinguished Investigator (no-cost extension to 2025)
2018-2028 Danish National Research Foundation PROMEMO Center of Excellence

Publications
Total 192 peer reviewed, published papers, > 19,600 citations, H-index 70 (Clarivate Web of Science, see the following section)

Publications Poul Nissen, February 2024

Total 192 peer-reviewed, published papers, >19,658 citations, H-index 70 (Clarivate Web of Science)

Manuscripts in processing

Hjorth-Jensen SJ, Konrad DB, Quistgaard EMH, Hansen LC, Novak A, Chu H, Jurášek M, Zimmermann T, Andersen JL, Baran PS, Nissen* P, Trauner* D (2023). Photoswitchable inhibitors of the sarco(endo)plasmic calcium pump. https://chemrxiv.org/engage/chemrxiv/article-details/6515d5bcade1178b244ca4bc.

Ayeotan TI, Hansen LC, Boesen T, Olesen CE, Møller JV, Nissen* P, Kjaergaard* M (2020). Histidine-rich Ca2+-binding protein stimulatesthe transport cycle of SERCA through a conformation-dependent fuzzy complex. BioRxiv doi:

https://doi.org/10.1101/2020.09.17.302869. *Manuscript in revision*

Dai Y, Idorn M, Serrero MC, Pan X, Thomsen EA, Narita R, Maimaitili M, Qian X, Iversen MB, Reinert LS, Flygaard RK, Chen M, Zhang BC, Carter-Timofte ME, Qing L, Jiang Z, Zhong Y, Zhang S, Da L, Jiwei Zhu L, Denham M, Nissen P, Mogensen TH, Mikkelsen JG, Zhang SY, Casanova JL, Cai Y, Paludan SR (2023). TMEFF1 is a neuron-specific restriction factor for herpes simplex virus. *Revised manuscript awaiting decision*

De Pol F, Baranowski M, Neumann C, Trampari S, Nissen P, Pérez J (2024). Simulating and modelling the detergent corona around the membrane protein MhsT based on SAXS data. *Manuscript in review*

Hansen SB, Flygaard RK, Kjærgaard M, Nissen P(2024). Structure of a Ca2+ bound phosphoenzyme intermediate in the inward-to-outward transition of Ca2+-ATPase. *Manuscript in submission*

Larsen ST, Dannersø JK, Nielsen CJF, Poulsen LR, Palmgren M, Nissen P (2024). Conserved N-terminal Regulation of the ACA8 Calcium Pump with Two Calmodulin Binding Sites.
https://www.biorxiv.org/content/10.1101/2023.12.07.570580v1, *Revised manuscript in submission*

Sun C, Nissen P (2024). Observing A Protein in its Natural Habitat. Materials Today Physics, *accepted*

Published peer-reviewed articles, commentaries and reviews

192. Herrera SA, Justesen BH, Dieudonné T, Montigny C, Nissen P, Lenoir G, Pomorski TG (2023). Direct evidence of lipid transport by the Drs2-Cdc50 flippase upon truncation of its terminal regions. Protein Sci. Dec 8:e4855. doi: 10.1002/pro.4855

191.Dieudonné T, Kümmerer F, Laursen MJ, Stock C, Flygaard RK, Khalid S, Lenoir G, Lyons JA, Lindorff-Larsen K, Nissen P(2023). Activation and substrate specificity of the human P4-ATPase ATP8B1. Nature Commun 14:7492.doi: 10.1038/s41467-023-42828-9.

190. Kowalski A, Betzer C, Larsen ST, Gregersen E, Newcombe EA, Bermejo MC, Bendtsen VW, Diemer J, Ernstsen CV, Jain S, Bou AE, Langkilde AE, Nejsum LN, Klipp E, Edwards R, Kragelund BB, Jensen PH, Nissen P (2023). Monomeric α-synuclein activates the plasma membrane calcium pump. EMBOJ 42(23):e111122. doi: 10.15252/embj.2022111122.

189. Lopes-Rodrigues V, Boxy P, Sim E, Park DI, Habeck M, Carbonell J, Andersson A, Fernández-Suárez D, Nissen P, Nykjær A, Kisiswa L (2023). AraC interacts with p75NTR transmembrane domain to induce cell death of mature neurons. Cell Death Dis 14:440. doi:10.1038/s41419-023-05979-7.

188. Flygaard RK, Habeck M, Nissen P (2023). Technical Comment on "Inhibition mechanism of NKCC1 involves the carboxyl terminus and long-range conformational coupling". Science Adv 9:eadh0821.doi: 10.1126/sciadv.adh0821

187. Stock C, Heger T, Basse Hansen S, Thirup Larsen S, Habeck M, Dieudonné T, Driller R, Nissen P (2023). Fast-forward on P-type ATPases: recent advances on structure and function. Biochem Soc Trans 51:1347-1360. doi:10.1042/BST20221543.

186. Fruergaard MU, Nielsen CJF, Kjeldsen CR, Iversen L, Andersen JL, Nissen P (2023). Activation and inhibition of the C-terminal kinase domain of p90 ribosomal S6 kinases. Life Sci Alliance 6:e202201425. doi: 10.26508/lsa.202201425

185. Neumann C, Rosenbæk LL, Flygaard RK, Habeck M, Karlsen JL, Wang Y, Lindorff-Larsen K, Gad HH, Hartmann R, Lyons JA, Fenton RA, Nissen P (2022). Cryo-EM structure of the human NKCC1 transporter reveals mechanisms of ion coupling and specificity. EMBO J 41:e110169.doi: 10.15252/embj.2021110169

184. Fruergaard MU, Dach I, Andersen JL, Ozol M, Shasavar A, Quistgaard EM, Poulsen H, Fedosova NU, Nissen P (2022). The Na,K-ATPase in complex with beryllium fluoride mimics an ATPase phosphorylated state. J Biol Chem. 298:102317. doi: 10.1016/j.jbc.2022.102317

183. Neumann C, Focht D, Trampari S, Lyons JA, Nissen P(2022). Variations on a theme: crystal forms of the amino-acid transporter MhsT. Acta Crystallogr F78:297-305. doi:10.1107/S2053230X22007154

182. Dieudonné T, Herrera SA, Laursen MJ, Lejeune M, Stock C, Slimani K, Jaxel C, Lyons JA, Montigny C, Pomorski TG, Nissen P*, LenoirG* (2022). Autoinhibition and regulation by phosphoinositides of ATP8B1, a human lipid flippase associated with intrahepatic cholestatic disorder. eLife11:e75272. doi: 10.7554/eLife.75272.

181. Nielsen JA, Brandt J, Boesen T, Hummelshøj T, Slaaby R, Schluckebier G, Nissen P (2022). Structural investigations of full-length insulin receptor dynamics and signalling. J Mol Biol 434:167458. doi: 10.1016/j.jmb.2022.167458

180. Trampari S, Neumann C, Hjorth-Jensen SJ, Shahsavar A, Quistgaard EM, Nissen P. Insights into the mechanism of high lipid-detergent (HiLiDe) crystallization of membrane proteins. J Appl Cryst 54,1775-1783

https://doi.org/10.1107/S1600576721010669

179. Fedosova N, Habeck M, Nissen P (2021). Structure and function of Na,K-ATPase – the sodium-potassium pump. Compr Physiol 12,2659-2679.

178. Quistgaard EM, Nissen JD, Hansen S, Nissen P (2021). Mind the Gap: Molecular Architecture of the Axon Initial Segment - From Fold Prediction to a Mechanistic Model of Function? J Mol Biol 433:167176.

177. Timcenko M, Dieudonne T, Montigny C, Boesen T, Lyons JA, Lenoir G, Nissen P (2021). Structural basis of substrate-independent phosphorylation in a P4-ATPase lipid flippase. J Mol Biol 433:167062.

176. Hansen SB, Dyla M, Neumann C, Quistgaard EMH, Andersen JL, Kjaergaard M, Nissen P (2021). The Crystal Structure of the Ca2+-ATPase 1 from Listeria monocytogenes reveals a Pump Primed for Dephosphorylation. J Mol Biol 433:167015

175. Han H, Round E, Schubert R, Gül Y, Makroczyová J, Meza D, Heuser P, Aepfelbacher M, Barák I, Betzel C, Fromme P, Kursula I, Nissen P, Tereschenko E, Schulz J, Uetrecht C, Ulicný J, Wilmanns M, Hajdu J, Lamzin VS, Lorenzen K (2021). The XBI BioLab for life science experiments at the European XFEL. J Appl Crystallogr 54,7-21 doi: 10.1107/S1600576720013989.

174. Christensen SB, Simonsen HT, Engedal N, Nissen P, Møller JV, Denmeade SR, Isaacs JT (2021). From Plant to Patient: Thapsigargin, a Tool for Understanding Natural Product Chemistry, Total Syntheses, Biosynthesis, Taxonomy, ATPases, Cell Death, and Drug Development. Prog Chem Org Nat Prod 115, 59-114 doi:10.1007/978-3-030-64853-4_2.

173. Shahsavar A, Stohler P, Bourenkov G, Zimmermann I, Siegrist M, Guba W, Pinard E, Sinning S, Seeger MA, Schneider TR, Dawson RJP, Nissen P (2021). Structural insights into glycine reuptake inhibition. Nature 591, 677-81 doi:10.1038/s41586-021-03274-z.

172. Geurts MMG, Clausen JD, Arnou B, Montigny C, Lenoir G, Corey RA, Jaxe C, Møller JV, Nissen P, Andersen JP, le Maire M, Bublitz M (2020) The SERCA residueGlu340 mediates inter-domain communication that guides Ca2+ transport. ProcNatl Acad Sci USA 117, 31114-31122

171. Focht D*, Neumann C*, Lyons JA*, Bilbao AE, Blunck R, Malinauskaite L, Schwarz IO, Javitch JA, Quick M, Nissen P (2020). Role of transmembrane helix 6 in substrate recognition of the amino acid transporter MhsT. EMBO J 40:e105164

170. Lazarov E, Hillebrand M, Schröder S, Ternka K, Hofhuis J, Ohlenbusch A, Barrantes-Freer A, Pardo LA, Fruergaard MU, Nissen P, Brockmann K, GärtnerJ, Rosewich H (2020). Comparative analysis of alternating hemiplegia ofchildhood and rapid-onset dystonia-parkinsonism ATP1A3 mutations reveals functional deficits, which do not correlate with disease severity. Neurobiol Dis. 143:105012. doi: 10.1016/j.nbd.2020.105012.

169. Lyons JA, Timcenko M, Dieudonne T, Lenoir G, Nissen P (2020). P4-ATPases:How an old dog learnt new tricks - structure and mechanism of lipid flippases. Curr Opin Struct Biol 63, 65-73

168. Ravishankar H, Pedersen MN, Eklund M, Sitsel A, Li C, Duelli A, Levantino M, Wulff M, Barth A, Olesen C, Nissen P, Andersson M (2020). TrackingCa2+ ATPase intermediates in real time by x-ray solution scattering. Sci Adv6:eaaz0981 doi: 10.1126/sciadv.aaz0981

167. Hjorth-Jensen SJ, Oksanen E, Nissen P, Sørensen TL (2020). Prospects for membrane protein crystals in NMX. Methods Enzymol 634, 47-68doi: 10.1016/bs.mie.2019.11.019

166. Gotfryd K, Boesen T, Mortensen JS, Khelashvili G, Quick M, Terry DS, Missel JW, LeVine MV, Gourdon P, Blanchard SC, Javitch JA, Weinstein H, Loland CJ, Nissen P, Gether U (2020). X-ray structure of LeuT in an inward-facing occluded conformation reveals mechanism of substrate release. Nature Comm 11:1005. doi: 10.1038/s41467-020-14735-w.

165. Lindner P, Christensen SB, Nissen P, Møller JV, Engedal N (2020). Cell death induced by the ER stressor thapsigargin involves death receptor 5, anon-autophagic function of MAP1LC3B, and distinct contributions from unfolded protein response components. Cell Commun Signal 18:12. doi:10.1186/s12964-019-0499-z.

164. Dyla M, Kjaergaard M, Poulsen H, Nissen P (2020). Structure and mechanism of P-type ATPase ion pumps. Annual Reviews of Biochemistry 89,583-603

163. Dyla M, Basse S, Nissen P, Kjærgaard M (2019). Structural dynamics of P-type ATPase ion pumps. Biochem Soc Trans 47,1247-1257

162. Saleh N, Wang Y, Nissen P, Lindorff-Larsen K (2019). Allosteric modulation of the sarcoplasmic reticulum Ca2+ ATPase by thapsigargin via decoupling of functional motions. Phys Chem Chem Phys 21, 21991-21995.

161. Kidmose RT, Juhl J, Nissen P, Boesen T, Karlsen JL, Pedersen BP(2019). Namdinator - automatic molecular dynamics flexible fitting of structural models into cryo-EM and crystallography experimental maps. IUCrJ6, 526-531

160. Timcenko M, Lyons JL, Januliene D, Ulstrup JJ, Dieudonne T, Montigny C, Ash MR, Boesen T, Kühlbrandt W, Lenoir G, Möller A, Nissen P (2019). Structure and autoregulation of a P4-ATPase lipid flippase. Nature 571,366-370 doi: 10.1038/s41586-019-1344-7

159. Sitsel A, de Raeymaecker J, Drachmann ND, Derua R, Smaardijk S, Andersen JL, Vandecaetsbeek I, Chen J, deMaeyer M, Waelkens E, Olesen CE, Vangheluwe P, Nissen P (2018). Structures of the heart specific SERCA2a Ca2+-ATPase. EMBO J 38:e100020. doi:10.15252/embj.2018100020

158. Sørensen TL, Hjort-Jensen A, Oksanen E, Andersen JL, Olesen C, Møller JV, Nissen P (2018).Membrane-protein crystals for neutron diffraction. Acta Crystallogr D74,1208-1218

157. Andersen JL, Gesser B, Funder ED, Nielsen CJ, Gotfred-Rasmussen H, Rasmussen M, Toth R, Gothelf K,J. Arthur SC, Iversen L, Nissen P (2018). Dimethyl fumarate is an allosteric covalent inhibitor of the p90 ribosomal S6 kinases. Nature Comm9, 4344 doi: 10.1038/s41467-018-06787-w

156. Szalai P, Parys JB, Bultynck G, Christensen SB, Nissen P, Møller JV, Engedal N (2018).Nonlinear relationship between ER Ca2+ depletion versus induction of the unfolded protein response, autophagy inhibition, and cell death. Cell Calcium 76, 48-61 doi: 10.1016/j.ceca.2018.09.005

155. Autzen HE, Koldsø H, Stansfeld PJ, Gourdon P, Sansom MSP, Nissen P (2018). Interactions of a Bacterial Cu(I)-ATPase with a Complex Lipid Environment. Biochemistry 57,4063-4073. doi: 10.1021/acs.biochem.8b00326

154. Chen M, Laursen SH, Habekost M, Knudsen CH, Buchholdt SH, Huang J, Xu F, Liu X, Bolund L, Luo Y, Nissen P, Febbraro F, Denham M (2018). Central and Peripheral Nervous System Progenitors Derived from Human Pluripotent Stem Cells Reveal a Unique Temporal and Cell-Type Specific Expression of PMCAs. Front Cell Develop Biol 6,5. doi: 10.3389/fcell.2018.00005

153. Midtgaard S, Darwish T, Pedersen M, Huda P, Larsen A, Jensen G, Kynde S, Skar-Gislinge N, Nielsen A, Olesen C, Blaise M, Venskutonyte R, Krintel C, Møller J, Frielinghaus H, Gilbert E, Martel A, Kastrup J, Jensen PE, Nissen P, Arleth L(2017). Invisible detergents for structure determination of membrane proteins by small-angle neutron scattering. FEBS J 285, 357-371 doi: 10.1111/febs.14345

152. Dyla M, Terry DS, Kjaergaard M, Sørensen TLM, Andersen JL, Andersen JP, Knudsen CR, Altman RA, Nissen P*, Blanchard SB* (2017). Dynamics of P-type ATPase transport cycle revealed by single-molecule FRET. Nature 551, 346-351 doi:10.1038/nature24296

151. Sehgal P, Szalai P, Olesen C, Praetorius HA, Nissen P, Christensen SB, Engedal N, Møller JV (2017). Inhibition of the sarco/endoplasmic reticulum (ER) Ca2+-ATPase by thapsigargin analogs induces cell death via ER Ca2+ depletion and the unfolded protein response. J Biol Chem 292, 19656-19673 doi:10.1074/jbc.M117.796920

150. Skjørringe T, Amstrup Pedersen P, Salling Thorborg S, Nissen P, Gourdon P, Birk Møller L (2017). Characterization ofATP7A missense mutants suggests a correlation between intracellular trafficking and severity of Menkes disease. Sci Rep 7, 757. doi: 10.1038/s41598-017-00618-6.

149. Focht D, Croll T, Pedersen BP, Nissen P (2017). Improved model of proton pump crystal structure obtained by interactive molecular dynamics flexible fitting expands the mechanistic model for proton translocation in P-type ATPases. Front Mol Biosci 8, 202. doi:10.3389/fphys.2017.00202

148. Azouaoui H, Montigny C, Dieudonné T, Champeil P, Jacquot A, Vázquez-Ibar JL, Le Maréchal P, Ulstrup J, Ash MR, Lyons JA, Nissen P, Lenoir G (2017). A High and Phosphatidylinositol-4-phosphate (PI4P)-dependent ATPase Activity for theDrs2p/Cdc50p Flippase after Removal of its N- and C-terminal Extensions. J Biol Chem 292, 7954-7970, doi: 10.1074/jbc.M116.751487

147. Stolzenberg S, Li Z, Quick M, Malinauskaite L, Nissen P, Weinstein H, Javitch JA, Shi L(2017). The Role of TM5 in Na2 Release and the Conformational Transition of Neurotransmitter:Sodium Symporters toward the Inward-Open State. J Biol Chem 292, 7372-7384. doi:10.1074/jbc.M116.757153

146. Holm TH, Isaksen TJ, Glerup S, Heuck A, Bøttger P, Füchtbauer EM, Nedergaard S, Nyengaard JR, Andreasen M, Nissen P, Lykke-Hartmann K (2016). Cognitive deficits caused by a disease-mutation in the α3 Na(+)/K(+)-ATPase isoform. Sci Rep 6, 31972. doi:10.1038/srep31972

145. Dyla M, Andersen JL, Kjaergaard M, Birkedal V, Terry DS, Altman RB, Blanchard SC, Nissen P, Knudsen CR (2016). Engineering a Prototypic P-type ATPase Listeria monocytogenes Ca(2+)-ATPase 1 for Single-Molecule FRET Studies.

Bioconjug Chem. 27, 2176-87. doi:10.1021/acs.bioconjchem.6b00387

144. Lyons JA, Shahsavar A, Paulsen PA, Pedersen BP, Nissen P (2016). Expression strategies for structural studies of eukaryotic membrane proteins. Curr Opin Struct Biol 38,137-144

143. Malinauskaite L,Said S, Sahin C, Grouleff J, Shahsavar A, Bjerregaard H, Noer P, Severinsen K, Boesen T, Schiøtt B, Sinning S, Nissen P (2016). A Conserved Leucine Occupies the Empty Substrate Site of LeuT in the Na+-free Return State. Nature Comm 7, 11673

142. Gregersen JL, Mattle D, Fedosova NU, Nissen P, Reinhard L (2016). Isolation, crystallization and crystal structure determination of bovine kidney Na(+),K(+)-ATPase. Acta Cryst F72, 282-287

141. Clausen JD, Bublitz M, Arnou B, Olesen C, Andersen JP, Møller JV, Nissen P (2016). Crystal Structure of the Vanadate-Inhibited Ca2+-ATPase. Structure 24, 617-23

140. Bøttger P, Glerup S, Gesslein B, Illarianova N, Isaksen T, Heuck A, Clausen B, Füchtbauer EM, Gramsbergen JB, Gunnarson E, Aperia A, Lauritzen M, Lambertsen K, Nissen P, and Lykke-Hartmann K (2016). Glutamate-system defects behind psychiatric manifestations in a familial hemiplegic migraine type 2 disease-mutation mouse model. Sci Rep 6, 22047 doi: 10.1038/srep22047

139. Kirscht A, Kaptan SS, Bienert GP, Chaumont F, Nissen P, de Groot BL, Kjellbom P, Gourdon P, Johanson U (2016). Crystal Structure of an Ammonia Permeable Aquaporin. PLOS Biology 14:e1002411. doi: 10.1371/journal.pbio.1002411

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