

Publications (peer reviewed):

- 1) Stefan E, Obexer R, Hofmann S, Vu Huu K, Huang Y, Morgner N, Suga H, Tampé R (2021) De-novo macrocyclic peptides dissect energy coupling of a heterodimeric ABC transporter by multimode allosteric inhibition. *eLife* 10, e67732. [doi:10.7554/eLife.67732](https://doi.org/10.7554/eLife.67732)
- 2) Joest EF, Winter C, Wesalo JS, Deiters A, Tampé R (2021) Light-guided intrabodies for on-demand in-situ target recognition in human cells. *Chem Science* 12,5787-95. [doi:10.1039/D1SC01331A](https://doi.org/10.1039/D1SC01331A)
- 3) Durán V, Grabski E, Hozsa C, Becker J, Yasar H, Costa B, Koller N, Lueder Y, Wiegmann B, Brandes G, Kaefer V, Lehr CM, Tampé R, Förster R, Bošnjak B, Furch M, Graalman, Kalinke U (2021) Fucosylated lipid nanocarriers loaded with antibiotics efficiently inhibit mycobacterial propagation in human myeloid cells. *J Controlled Release* 334, 201-22. [doi:10.1016/j.conrel.2021.Joest.04.012](https://doi.org/10.1016/j.conrel.2021.Joest.04.012)
- 4) Barbet G, Nair-Gupta P, Schotsaert M, Yeung ST, Moretti J, Seyffer F, Metreveli G, Tardner T, Choi A, Tortorella D, Tampé R, Khanna KM, Garcia-Sastre A, Blander JM (2021) TAP dysfunction redirects subcellular MHC-I traffic to enable non-canonical cross-presentation and CD8 T cell priming. *Nat Immunol* 22, 497-509. [doi:10.1038/s41590-021-00903-7](https://doi.org/10.1038/s41590-021-00903-7)
- 5) Brunnberg J, Herbring V, Günther Castillo E, Krüger H, Wieneke R, Tampé R (2021) Light control of the peptide-loading complex synchronizes antigen translocation and MHC I trafficking. *Commun Biol* 4,430. [doi:10.1038/s42003-021-01890-z](https://doi.org/10.1038/s42003-021-01890-z)
- 6) Sánchez MF, Els-Heindl S, Beck-Sickinger AG, Wieneke R, Tampé R (2021) Photo-induced receptor confinement drives ligand-independent GPCR signaling. *Science* 371, abb7657. [doi:10.1126/science.abb7657](https://doi.org/10.1126/science.abb7657)
- 7) Diederichs T, Tampé R (2021) Single cell-like systems reveal active unidirectional and light-controlled transport by nanomachineries. *ACS Nano*, in press. [doi:10.1021/acsnano.0c10139](https://doi.org/10.1021/acsnano.0c10139)
- 8) Thomas C, Tampé R (2021) MHC I assembly and peptide editing – Chaperones, clients, and molecular plasticity. *Curr Opin Immunol* 70, 48-56. [doi:10.1016/j.coi.2021.02.004](https://doi.org/10.1016/j.coi.2021.02.004)
- 9) Thomas C, Tampé R (2020) Structural and mechanistic principles of ABC transporters. *Annu Rev Biochem* 89, 605-36. [doi:10.1146/annurev-biochem-011520-105201](https://doi.org/10.1146/annurev-biochem-011520-105201)
- 10) Stefan E, Hofmann S, Tampé R (2020) A single power stroke by ATP binding drives substrate translocation in a heterodimeric ABC transporter. *eLife* 9, e55943. [doi:10.7554/eLife.55943](https://doi.org/10.7554/eLife.55943)
- 11) De Waard AA, Verkerk T, Jongsma MLM, Hoefakker K, Sethumadhavan S, Gerke C, Bliss S, Kong X, Janssen GMC, de Ru AH, Class FHJ, Mulder A, Tampé R, van Veelen PA, Halenius A, Spaapen RM (2020) PACK: A novel panel of HLA class I antigen presentation machinery knockout cells from the same genetic origin. *Eur J Immunol* 51, 734-737. [doi:10.1002/eji.202048599](https://doi.org/10.1002/eji.202048599)
- 12) Thomas C, Aller SG, Beis K, Carpenter EP, Chang G, Chen L, Dassa E, Dean M, Doung van Hoa F, Ekiert D, Ford R, Gaudet R, Gong x, Holland IB, Huang Y, Kahne DK, Kato H, Kornakis V, Koth CM, Lee Y, Lewinson O, Lill R, Martinoia E, Marakami S, Pinkett HW, Poolman B, Rosenbaum D, Sarkadi B, Schmitt L, Schneider E, Shi Y, Shyng SL, Slotboom DJ, Tajikhorshid E, Tieleman DP, Ueda K, Váradi A, Wen PC, Van N, Zhang P, Zheng H, Zimmer J, Tampé R (2020) Structural and functional diversity calls for a new classification of ABC transporters. *FEBS Lett* 594, 2767-75. [doi:10.1002/1873-3468-13936](https://doi.org/10.1002/1873-3468-13936)
- 13) Barth K, Rudolph M, Diederichs T, Prisner TF, Tampé R, Joseph B (2020) Thermodynamic basis for conformational coupling in an ATP-binding cassette exporter. *J Phys Chem Lett* 11, 7946-53. [doi:10.1021/acs.jpcllett.0c01876](https://doi.org/10.1021/acs.jpcllett.0c01876)
- 14) Liams E, Black RA, Mulheran PA, Tampé R, Wieneke R, Thoams ORT, Zhang ZJ (2020) Probing fibronectin adsorption on chemically defined surfaces by means of single molecule force microscopy. *Sci Rep* 10, 15662. [doi:10.1038/s41598-020-72617-z](https://doi.org/10.1038/s41598-020-72617-z)

- 15) Dultz G, Shimakami T, Schneider M, Murai K, Yamane D, Marion A, Zeitler TM, Stross C, Grimm C, Richter RM, Bäumer K, Yi M, Biondi RM, Zeuzem S, Tampé R, Antes I, Lange CM, Welsch C (2020) Extended interaction networks with HCV protease NS3-4A substrates explain the lack of adaptive capability against protease inhibitors. *J Biol Chem* 295, 13862-74. [doi:10.1074/jbc.RA120.013898](https://doi.org/10.1074/jbc.RA120.013898)
- 16) Mavridis G, Arya R, Domnick A, Zoidakis J, Makridakis M, Vlahou A, Mpakali A, Lelis A, Georgiadis D, Tampé R, Papakyriakou A, Stern L, Stratikos E (2020) A systematic re-examination of processing of MHCI-bound antigenic peptide precursors by ER aminopeptidase I. *J Biol Chem* 295, 7193-210. [doi:10.1074/jbc.RA120.012976](https://doi.org/10.1074/jbc.RA120.012976)
– Front Cover Story in *J Biol Chem* 295, May 22, 2020; Editor's Pick: Colbert JD & Rock KL (2020) *J Biol Chem*.
- 17) Khoo KK, Galleano I, Gasparri F, Wieneke R, Harms H, Poulsen MH, Chua HC, Wulf M, Tampé R, Pless SA (2020) Chemical modification of proteins by insertion of synthetic peptides using tandem protein trans-splicing. *Nat Commun* 11, 2284. [doi:10.1038/s41467-020-16308-6](https://doi.org/10.1038/s41467-020-16308-6)
- 18) Sagert L, Hennig F, Thomas C, Tampé R (2020) A loop structure allow TAPBPR to exert its dual function as MHC I chaperone and peptide editor. *eLife* 9, e55326. [doi:10.7554/eLife.55326](https://doi.org/10.7554/eLife.55326)
- 19) Brüchert S, Joest EF, Gatterdam K, Tampé R (2020) Ultrafast in-gel detection by fluorescent upper-chelator probes with HisQuick-PAGE. *Commun Biol* 3, 138. [doi:10.1038/s42003-020-0852-1](https://doi.org/10.1038/s42003-020-0852-1)
- 20) Nürnberg-Goloub E, Kratzat H, Heinemann H, Heuer A, Kötter P, Berninghausen O, Becker T, Tampé R*, Beckmann R* (2020) Molecular analysis of the ribosome recycling factor ABCE1 bound to the 30S post-splitting complex. *EMBO J* 39, e103788. (*corr. author, #lead contact) [doi:10.15252/embj.2019103788](https://doi.org/10.15252/embj.2019103788)
- 21) Trowitzsch S, Tampé R (2020) Multifunctional chaperone and quality control complexes in adaptive immunity. *Annu Rev Biophys* 49, 135-161. [doi:10.1146/annurev-biophys-121219-081643](https://doi.org/10.1146/annurev-biophys-121219-081643).
- 22) Nürnberg-Goloub E, Tampé R (2019) Ribosome recycling in mRNA translation, quality control, and homeostasis. *Biol Chem*, 401, 47-61. [doi:10.1515/hsz-2019-0279](https://doi.org/10.1515/hsz-2019-0279)
- 23) Diederichs T, Pugh G, Dovey A, Xing Y, Burns JR, Nguyen QH, Tornow M, Tampé R*, Howorka S* (2019) Synthetic protein-conductive membrane nanopores built with DNA. *Nat Commun* 10, 5018. (*corr. author) [doi:10.1038/s41467-019-12639-y](https://doi.org/10.1038/s41467-019-12639-y)
- 24) Bock C, Zollmann T, Lindt KA, Tampé R, Abele R (2019) Peptide translocation by the lysosomal ABC transporter TAPL is regulated by coupling efficiency and activation energy. *Sci Rep* 9, 1184. [doi:10.1038/s41598-019-48343-6](https://doi.org/10.1038/s41598-019-48343-6)
- 25) Hofmann S, Janulienė D, Mehdipour AR, Thomas C, Stefan E, Brüchert S, Kuhn BT, Geertsma ER, Hummer G, Tampé R*, Moeller A* (2019) Conformation space of a heterodimeric ABC exporter under turnover conditions. *Nature* 471, 580-3. (*corr. author, #lead contact) [doi:10.1038/s41586-019-1391-0](https://doi.org/10.1038/s41586-019-1391-0)
– Front Cover Story in *Nature* 471.
- 26) Gouridis G, Hertzert B, Kiosze-Becker K, de Boer M, Heinemann H, Nürnberg-Goloub E, Cordes T, Tampé R (2019) ABCE1 controls ribosome recycling by an asymmetric dynamic conformation equilibrium. *Cell Rep* 28, 723-634. [doi:10.1016/j.celrep.2019.06.052](https://doi.org/10.1016/j.celrep.2019.06.052)
- 27) Döring M, Blees H, Koller N, Tischer-Zimmermann S, Müsken M, Henrich F, Becker J, Garbski E, Wang J, Jannssen H, Zuschatter W, Neefjes J, Klawonn F, Eiz-Vesper B, Tampé R*, Kalinke U* (2019) Modulation of TAP-dependent antigen compartmentalization during human monocyte-to-DC differentiation. *Blood Adv* 3, 839-50. (*corr. author) [doi:10.1182/bloodadvances.2018027268](https://doi.org/10.1182/bloodadvances.2018027268)
- 28) Baldering TN, Dietz MS, Gatterdam K, Karathanasis C, Wieneke R, Tampé R, Heilemann M (2019) Synthetic and genetic dimers as quantification ruler for single-molecule counting with PALM. *Mol Biol Cell*, mbcE18100661. [doi:10.1091/mbc.E18-10-0661](https://doi.org/10.1091/mbc.E18-10-0661)
- 29) Thomas C, Tampé R (2019) MHC I chaperone complexes shaping immunity. *Curr Opin Immunol* 58, 9-15. [doi:10.1016/j.coi.2019.01.001](https://doi.org/10.1016/j.coi.2019.01.001)

- 30) Graab R, Brock C, Weiss K, Hirth A, Koller N, Braner M, Jung J, Loehr F, Tampé R, Behrends C, Abele R (2019) Lysosomal targeting of the ABC transporter TAPL is determined by membrane localized charged residues. *J Biol Chem* 294,7308-23. [doi:10.1074/jbc.RA118.007071](https://doi.org/10.1074/jbc.RA118.007071)
- 31) Wieneke R, Tampé R (2019) Multivalent chelators for in vivo protein labeling. *Angew Chem* 58, 8278-90. [doi:10.1002/anie.201811293](https://doi.org/10.1002/anie.201811293)
- 32) Venkataramani V, Kardorff M, Hermannsdorfer F, Wieneke R, Klein A, Tampé A, Heilemann M, Kuner T (2018) Enhanced labeling density and whole-cell 3D dSTROM imaging by repetitive labeling of target proteins. *Sci Rep* 8, 5507.
- 33) Braner M, Koller N, Knauer J, Herbring V, Hank S, Wieneke R, Tampé R (2018) Optical control of the antigen translocation by synthetic photo-conditional viral inhibitors. *Chem Sci* 10, 2001-5. [doi:10.1039/c8sc04863k](https://doi.org/10.1039/c8sc04863k)
- 34) Klein A, Hank S, Raulf A, Joest EF, Tissen F, Heilemann M, Wieneke R, Tampé R (2018) Live-cell labeling of endogenous proteins with nanometer precision by transduced nanobodies. *Chem Science*, 9, 7835. [doi:10.1039/c8sc02910e](https://doi.org/10.1039/c8sc02910e)
- 35) Gerovac M, Tampé R (2018) Control of mRNA translation by versatile ATP-driven machines. *Trends Biochem Sci* 44, 167-80. [doi:10.1016/j.tibs.2018.11.003](https://doi.org/10.1016/j.tibs.2018.11.003)
- 36) Bock C, Löhr F, Tumulka F, Reichel K, Würtz J, Hummer G, Schäfer L, Tampé R, Joseph B, Bernhard F, Dötsch V, Abele R (2018) Structural and functional insights into the interaction and targeting hub TMD0 of the polypeptide transporter TAPL. *Sci Rep* 8, 15662. [doi:10.1038/s41598-019-48343-6](https://doi.org/10.1038/s41598-019-48343-6)
- 37) Nürnberg-Goloub E, Heinemann H, Gerovac M, Tampé R (2018) Ribosome recycling is coordinated by processive events in two asymmetric ATP sites of ABCE1. *Life Science Alliance* 1, e201800095. [doi:10.26508/lsa.201800095](https://doi.org/10.26508/lsa.201800095)
– Highlighted as Front Cover Page
- 38) Glembockyte V, Wieneke R, Gatterdam K, Gidi Y, Tampé R*, Cosa G* (2018) Tris-N-nitrilotriacetic acid fluorophore as a self-healing dye for single-molecule fluorescence imaging. *J Am Chem Soc* 140, 11006-12. [doi:10.1021/jacs.8b04681](https://doi.org/10.1021/jacs.8b04681) (*corr. author)
- 39) Brzozowska E, Lesniewski A, Sek S, Wieneke R, Tampé R, Gorska S, Jönsson-Niedziolka M, Niedziolka-Jönsson J (2018) Interactions of bacteriophage T4 adhesin with selected lipopolysaccharides studied using atomic force microscopy. *Sci Rep* 8, 10835. [doi:10.1038/s41598-018-29383-w](https://doi.org/10.1038/s41598-018-29383-w)
- 40) Gatterdam K, Joest EF, Gatterdam V, Tampé R (2018) The scaffold design of trivalent chelator heads dictates affinity and stability for labeling His-tagged proteins in vitro and in cells. *Angew Chem Int Ed* 57, 12395-9. [doi:10.1002/anie.201802746](https://doi.org/10.1002/anie.201802746)
- 41) Thomas C, Tampé R (2018) Multifaceted structures and mechanisms of ABC transport systems in health and disease. *Curr Opin Struct Biol* 51, 116-28. [doi:10.1016/j.sbi.2018.03.016](https://doi.org/10.1016/j.sbi.2018.03.016)
- 42) Abele R, Tampé R (2018) Moving the cellular peptidome by transporters. *Fronts Cell Dev Biol* 6, 43. [doi:10.3389/fcell.2018.00043](https://doi.org/10.3389/fcell.2018.00043)
- 43) Diederichs T, Nguyen QH, Urban M, Tampé R*, Tornow M* (2018) Transparent nanopore cavity arrays enable highly parallelized optical studies of single membrane proteins on chip. *Nano Lett*, 18, 3901-10. [doi:10.1021/acs.nanolett.8b01252](https://doi.org/10.1021/acs.nanolett.8b01252) (*corr. author)
- 44) Gatterdam K, Joest EF, Dietz MS, Heilemann M, Tampé R (2018) Super-chelators for advanced protein labeling in living cells. *Angew Chem Int Ed* 57, 5620-5. [doi:10.1002/anie.201800827](https://doi.org/10.1002/anie.201800827)
– Highlighted as Cover Page (Frontipiece)
- 45) Posch S, Obser T, König G, Schneppenheim R, Tampé R, Hinterdorfer P (2018) Interaction of von Willebrand factor domains with collagen investigated by single molecule force spectroscopy. *J Chem Phys* 148, 123310. [doi:10.1063/1.5007313](https://doi.org/10.1063/1.5007313)

- 46) Barth K, Hank S, Spindler PE, Prisner TF, Tampé R, Joseph B (2018) Conformational coupling and trans-inhibition in the human antigen transporter ortholog TmrAB resolved with dipolar EPR spectroscopy, *J Am Chem Soc* 140, 4527-33. [doi:10.1021/jacs.7b12409](https://doi.org/10.1021/jacs.7b12409)
- 47) Blees A, Janulienė D, Hofmann T, Koller N, Schmidt C, Trowitzsch S, Moeller A, Tampé R (2017) Structure of the human MHC-I peptide-loading complex. *Nature* 551, 525-8. [doi:10.1038/nature24627](https://doi.org/10.1038/nature24627)
– Cover Story and News & View in *Nature* 551, 442-3.
– Dispatch in *Curr Biol* 28, R83-R86.
– Highlight in *Faculty 1000 Prime*
- 48) Thomas C, Tampé R (2017) Structure of the TAPBPR-MHC I complex defines the mechanism of peptide loading and editing. *Science* 358, 1060-4. [doi:10.1126/science.aao6001](https://doi.org/10.1126/science.aao6001)
– Insights & Perspectives in *Science* 358, 992-3.
– News & View in *Nature* 551, 442-3.
– Viewpoint in *Biochemistry* 57, 1423-5.
– Highlight in *Faculty 1000 Prime*
- 49) Bartelt SM, Chervyachkova E, Steinkühler J, Ricken J, Wieneke R, Tampé R, Dimova R, Wegner SV (2018) Dynamic blue light-switchable protein patterns on giant unilamellar vesicles. *Chem Comm* 54, 948-51. [doi:10.1039/c7cc08758f](https://doi.org/10.1039/c7cc08758f)
- 50) Khageh Hosseini S, Kolterer S, Steiner M, von Manstein V, Gerlach K, Trojan J, Waidmann O, Zeuzem S, Schulze JO, Hahn S, Steinhilber D, Gatterdam V, Tampé R, Biondi RM, Proschak E, Zörnig M (2017) Camptothecin and its analog SN-38, the active metabolite of irinotecan, inhibit binding of the transcriptional regulator and oncoprotein FUBP1 to its DNA target sequence FUSE. *Biochem Pharmacol* 146, 53-62. [doi:10.1016/j.bcp.2017.10.003](https://doi.org/10.1016/j.bcp.2017.10.003)
- 51) Heuer A, Gerovac M, Schmidt C, Trowitzsch S, Preis A, Kötter P, Berninghausen O, Becker T, Beckmann R, Tampé R (2017) Structure of the 40S-ABCE1 post-splitting complex in ribosome recycling and translation initiation. *Nat Struct Mol Biol* 24, 453-60. [doi:10.1038/nsmb.3396](https://doi.org/10.1038/nsmb.3396)
– Previews in *Mol Cell* 66, 578-80.
- 52) Nöll A, Thomas C, Herbring V, Zollmann T, Barth K, Mehdipour AR, Tomasiak TM, Brüchert S, Joseph B, Abele R, Olieric V, Wang M, Diederichs K, Hummer G, Stroud RM, Posch KM, Tampé R (2016) Crystal Structure and mechanistic basis of a functional homolog of the antigen transporter TAP. *Proc Natl Acad Sci USA* 114, E438-E447. [doi:10.1073/pnas.1620009114](https://doi.org/10.1073/pnas.1620009114)
- 53) Kankate L, Aguf A, Grossmann H, Schnietz M, Tampé R, Turchanin A, Götzhäuser A (2017) Vapor phase exchange of self-assembled monolayers for engineering of biofunctional surfaces. *Langmuir* 3, 3847-54. [doi:10.1021/acs.langmuir.6b04207](https://doi.org/10.1021/acs.langmuir.6b04207)
- 54) Thomas C, Tampé R (2017) Proofreading of Peptide–MHC complexes through dynamic multivalent interactions. *Front Immunol* 8, 65. [doi:10.3389/fimmu.2017.00065](https://doi.org/10.3389/fimmu.2017.00065)
- 55) Braner M, Wieneke R, Tampé R (2017) Nanomolar affinity protein trans-splicing monitored in real-time by fluorophore-quencher pairs. *Chem Commun* 53, 545-8. [doi:10.1039/c6cc08862g](https://doi.org/10.1039/c6cc08862g)
- 56) Lehnert E, Tampé R (2017) Structure and dynamics of antigenic peptides in complex with TAP. *Front Immunol* 8, 10. [doi:10.3389/fimmu.2017.00010](https://doi.org/10.3389/fimmu.2017.00010)
- 57) Posch S, Aponte-Santamaría C, Schwarzl R, Karner A, Radtke M, Gräter F, Obser T, König G, Brehm MA, Gruber HJ, Netz RR, Baldauf C, Schneppenheim R, Tampé R, Hinterdorfer P (2017) Mutual A domain interactions in the force sensing protein von Willebrand factor. *J Struct Biol* 197, 57-64. [doi:10.1016/j.jsb.2016.04.012](https://doi.org/10.1016/j.jsb.2016.04.012)
- 58) Kaur H, Lakatos-Karoly A, Vogel R, Nöll A, Tampé R, Glaubitz C (2016) Coupled ATPase-adenylate kinase activity in ABC transporters. *Nat Commun* 7, 13864. [doi:10.1038/ncomms13864](https://doi.org/10.1038/ncomms13864)
- 59) Lehnert E, Mao J, Mehdipour AR, Hummer S, Abele R, Glaubitz C, Tampé R (2016) Antigenic peptide recognition on the human ABC transporter TAP resolved by DNP-enhanced solid-state NMR spectroscopy. *J Am Chem Soc* 138, 13967-74. [doi:10.1021/jacs.6b07426](https://doi.org/10.1021/jacs.6b07426)

- 60) Herbring V, Bäucker A, Trowitzsch S, Tampé R (2016) A dual inhibition mechanism of the herpesviral ICP47 arresting a conformationally thermostable TAP complex. *Sci Rep* 6, 36907. [doi:10.1038/srep36907](https://doi.org/10.1038/srep36907)
- 61) Kiosze-Becker K, Ori A, Gerovac M, Heuer A, Nürnberg-Goloub E, Jan Rashid U, Becker T, Beckmann R, Beck M, Tampé R (2016) Structure of the ribosome post-recycling complex probed by chemical cross-linking and mass spectrometry. *Nat Commun* 7, 13248. [doi:10.1038/ncomms13248](https://doi.org/10.1038/ncomms13248)
- 62) Robb NC, Te Velthuis AJ, Wieneke R, Tampé R, Cordes T, Fodor E, Kapanidis AN (2016) Single-molecule FRET reveals the pre-initiation and initiation conformations of influenza virus promoter RNA. *Nucleic Acids Res* 44, 10304-15. [doi:10.1093/nar/gkw884](https://doi.org/10.1093/nar/gkw884)
- 63) Guesdon A, Bazile F, Buey R, Mohan R, Monier S, Rodríguez-García R, Angevin M, Heichette C, Wieneke R, Tampé R, Duchesne L, Akhmanova A, Steinmetz M, Chrétien D (2016) EB1 interacts with outwardly curved and straight regions of the microtubule lattice. *Nat Cell Biol* 8, 1102-8. [doi:10.1038/ncb3412](https://doi.org/10.1038/ncb3412)
- 64) Casanas A, Warshamanage R, Finke AD, Panepucci E, Olieric V, Nöll A, Tampé R, Brandstetter S, Förster A, Mueller M, Schulze-Briese C, Bunk O, Wang M. (2016) EIGER detector: application in macromolecular crystallography. *Acta Crystallogr D Struct Biol* 72, 1036-48. [doi:10.1107/S2059798316012304](https://doi.org/10.1107/S2059798316012304)
- 65) Urban M, Vor der Brüggen M, Tampé R (2016) Membrane transport processes analyzed by a highly parallel nanopore chip system at single protein resolution. *J Vis Exp* 114, 53373. [doi:10.3791/53373](https://doi.org/10.3791/53373)
- 66) Posch S, Aponte-Santamaría C, Schwarzl R, Karner A, Radtke M, Gräter F, Obser T, König G, Brehm MA, Gruber HJ, Netz RR, Baldauf C, Schneppenheim R, Tampé R, Hinterdorfer P (2016) Single molecule force spectroscopy data and BD- and MD simulations on the blood protein von Willebrand factor. *Data Brief* 8, 1080-7. [doi:10.1016/j.dib.2016.07.031](https://doi.org/10.1016/j.dib.2016.07.031)
- 67) Schmidt A, Brettschneider K, Kahle J, Orłowski A, Becker-Peters K, Stichel D, Schulze J, Braner M, Tampé R, Schwabe D, Königs C (2016) Neutralisation of factor VIII inhibitors by anti-idiotypes isolated from phage-displayed libraries. *Thromb Haemost* 116, 32-41. [doi:10.1160/TH15-12-0925](https://doi.org/10.1160/TH15-12-0925)
- 68) Kollmannsperger A, Sharei A, Raulf A, Heilemann M, Langer R, Jensen KF, Wieneke R, Tampé R (2016) Live-cell protein labelling with nanometre precision by cell squeezing. *Nat Commun* 7, 10372. [doi:10.1038/ncomms10372](https://doi.org/10.1038/ncomms10372)
- 69) Braner M, Kollmannsperger A, Wieneke R, Tampé R (2016) 'Traceless' tracing of proteins – High-affinity trans-splicing directed by a minimal interaction pair. *Chem Science* 7, 2646-52. [doi:10.1039/C5SC02936H](https://doi.org/10.1039/C5SC02936H)
- 70) Heise R, Amann PM, Ensslen S, Marquardt Y, Jousen S, Johann D, Abele R, Plewnia G, Tampé R, Merk HF, Hermanns HM, Baron JM (2016) Interferon alpha signalling and its relevance for the upregulatory effect of transporter proteins associated with antigen processing (TAP) in patients with malignant melanoma. *PLoS One* 11, e0146325. [doi:10.1371/journal.pone.0146325](https://doi.org/10.1371/journal.pone.0146325)
- 71) Fiset O, Wingbermhühle S, Tampé R, Schäfer LV (2015) Molecular mechanism of peptide editing in the tapasin-MHC I complex. *Sci Rep* 5, 19085. [doi:10.1038/srep19085](https://doi.org/10.1038/srep19085)
- 72) Blees A, Reichel K, Trowitzsch S, Fiset O, Bock C, Abele R, Hummer G, Schäfer LV, Tampé R (2015) Assembly of the MHC I peptide-loading complex determined by a conserved ionic lock-switch. *Sci Rep* 5, 17341. [doi:10.1038/srep17341](https://doi.org/10.1038/srep17341)
- 73) Urban M, Tampé R (2015) Membranes on nanopores for multiplexed single-transporter analyses. *Microchim Acta* 183, 965-71. [doi:10.1007/s00604-015-1676-4](https://doi.org/10.1007/s00604-015-1676-4)
- 74) Pfreunds Schuh M, Alsteens D, Wieneke R, Zhang C, Coughlin S, Tampé R, Kobilka B, Müller D (2015) Identifying and quantifying two ligand-binding sites while imaging native human membrane receptors by AFM. *Nat Commun* 6, 8857. [doi:10.1038/ncomms9857](https://doi.org/10.1038/ncomms9857)

- 75) Fleischmann G, Fiset O, Thomas C, Wieneke R, Tumulka F, Schneeweiss C, Springer, S. Schäfer LV, Tampé R (2015) Mechanistic basis for epitope proofreading in the peptide-loading complex. *J Immunol* 195, 4503-13. [doi:10.4049/jimmunol.1501515](https://doi.org/10.4049/jimmunol.1501515)
– Highlighted as Cutting Edge Article in *J Immunol*
- 76) Wieneke R, Raulf A, Kollmannsperger A, Heilemann M, Tampé R (2015) SLAP: Small labeling pair for single-molecule super-resolution imaging. *Angew Chem Int Ed* 54, 10216-9. [doi:10.1002/anie.201503215](https://doi.org/10.1002/anie.201503215)
– Highlighted by Front Cover Page
- 77) Strale, PO, Duchesne L, Peyret G, Montel L, Nguyen T, Png E, Tampé R, Troyanovsky S, Hénon S, Ladoux B, Mège RM (2015) The formation of ordered nanoclusters controls cadherin anchoring to actin and cell-cell contact fluidity. *J Cell Biol* 210, 333-46. [doi:10.1083/jcb.201410111](https://doi.org/10.1083/jcb.201410111)
- 78) Koho T, Ihalainen TO, Stark M, Uusi-Kerttula H, Wieneke R, Rahikainen R, Blazevic V, Marjomäki V, Tampé R, Kulomaa MS, Hytönen VP (2015) His-tagged norovirus-like particles: A versatile platform for cellular delivery and surface display. *Eur J Pharm Biopharm* 96, 22-31. [doi:10.1016/j.ejpb.2015.07.002](https://doi.org/10.1016/j.ejpb.2015.07.002)
- 79) Eggensperger S, Tampé R (2015) The transporter associated with antigen processing – a key player in adaptive immunity. *Biol Chem* 396, 1059-72. [doi:10.1515/hsz-2014-0320](https://doi.org/10.1515/hsz-2014-0320)
- 80) Trowitzsch S, Tampé R (2015) Multicolor fluorescence-based screening toward structural analysis of multiprotein membrane complexes. *Meth Enzymol* 557, 3-26. [doi:10.1016/bs.mie.2014.11.043](https://doi.org/10.1016/bs.mie.2014.11.043)
- 81) Bechara C, Nöll A, Morgner, N, Degiacomi, MT, Tampé R*, Robinson CV* (2015) A subset of annular lipids is linked to the flippase activity of an ABC transporter. *Nat Chem* 7, 255-62. (*corr. author) [doi:10.1038/nchem.2172](https://doi.org/10.1038/nchem.2172)
- 82) Kim JM, Wu, S, Tomasiak T, Mergel C, Winter MN, Stiller S, Robles-Colmanares Y, Stroud RM*, Tampé R*, Craik CS*, Cheng Y* (2015) Subnanometre-resolution electron cryomicroscopy structure of a heterodimeric ABC exporter. *Nature* 517, 396-400. (*corr. author) [doi:10.1038/nature13872](https://doi.org/10.1038/nature13872)
- 83) Zollmann T, Moiset G, Tumulka F, Tampé R, Poolman B, Abele R (2015) Single liposome analysis of peptide translocation by the ABC transporter TAPL. *Proc Natl Acad Sci USA* 112, 2046-51. [doi:10.1073/pnas.1418100112](https://doi.org/10.1073/pnas.1418100112)
- 84) Fischbach H, Döring M, Nikles D, Lehnert E, Baldauf C, Kalinke U, Tampé R (2015) Ultra-sensitive quantification of TAP-dependent antigen compartmentalization in scarce primary immune cell subsets. *Nat Commun* 6, 6199. [doi:10.1038/ncomms7199](https://doi.org/10.1038/ncomms7199)
- 85) Lin J, Eggensperger S, Hank S, Wieneke R, Mayerhofer PU, Tampé R (2014) A negative feedback modulator of antigen processing evolved from a frameshift in the cowpox virus genome. *PLoS Pathogens* 10, e1004554. [doi:10.1371/journal.ppat.1004554](https://doi.org/10.1371/journal.ppat.1004554)
- 86) Grossmann N, Vakkasoglu AS, Hulpke S, Abele R, Gaudet R, Tampé R (2014) Mechanistic determinants of the directionality and energetics of active export by a heterodimeric ABC transporter. *Nat Commun* 5, 5419. [doi:10.1038/ncomms6419](https://doi.org/10.1038/ncomms6419)
- 87) Hinz A, Jedamzick J, Herbring V, Fischbach H, Hartmann J, Parcej D, Koch J, Tampé R (2014) Assembly and function of the MHC I peptide-loading complex are conserved across jawed vertebrates. *J Biol Chem* 289, 33109-17. [doi:10.1074/jbc.M114.609263](https://doi.org/10.1074/jbc.M114.609263)
- 88) Eggensperger S, Fiset O, Parcej D, Schäfer VL, Tampé R (2014) An annular lipid belt is essential for allosteric coupling and viral inhibition of the antigen translocation complex TAP. *J Biol Chem* 289, 33098-108. [doi:10.1074/jbc.M114.592832](https://doi.org/10.1074/jbc.M114.592832)
- 89) Seyffer F, Tampé R (2014) ABC transporters in adaptive immunity. *Biophys Biochem Acta* 1850, 449-60. [doi:10.1016/j.bbagen.2014.05.022](https://doi.org/10.1016/j.bbagen.2014.05.022)

- 90) Wieneke R, Labòria N, Rajan M, Kollmannsperger A, Natale F, Cardoso MC, Tampé R (2014) Live-cell targeting of His-tagged proteins by multivalent N-nitrilotriacetic acid carrier complexes. *J Am Chem Soc* 136, 13975-8. [doi:10.1021/ja5063357](https://doi.org/10.1021/ja5063357)
- 91) Mayerhofer PU, Tampé R (2014) Antigen translocation machineries in adaptive immunity and viral immune evasion. *J Mol Biol* 427, 1102-18. [doi:10.1016/j.jmb.2014.09.006](https://doi.org/10.1016/j.jmb.2014.09.006)
- 92) Nair-Gupta P, Baccarini A, Tung N, Seyffer F, Florey O, Huang, Y, Banerjee M, Overholtzer M, Roche PA, Tampé R, Brown DB, Amsen D, Whiteheart SW, Blander JM (2014) TLR signals induce phagosomal MHC-I delivery from endosomal recycling compartment to allow cross-presentation. *Cell* 185, 506-14. [doi:10.1016/j.cell.2014.04.054](https://doi.org/10.1016/j.cell.2014.04.054)
- 93) Arnold P, Decker TM, Markl J, Gatterdam V, Tampé R, Himmels P, Weiß S, Bartholomäus P, Dietrich U, Dürr R (2014) Antigenic and 3D structural characterization of soluble X4 and hybrid X4-R5 HIV-1 Env trimers. *Retrovirology* 11, 42. [doi:10.1186/1742-4690-11-42](https://doi.org/10.1186/1742-4690-11-42)
- 94) Gatterdam V, Ramadass R, Stoess T, Fichte MAH, Wachtveitl J, Heckel A, Tampé R (2014) Three-dimensional protein networks assembled by two-photon activation. *Angew Chem Int Ed* 53, 5680-4. [doi:10.1002/anie.201309930](https://doi.org/10.1002/anie.201309930)
- 95) Urban M, Kleefen A, Mukherjee N, Seelheim P, Windschiegl B, von der Brüggen M, Kocer A, Tampé R (2014) Highly parallel transport recordings on membrane-on-nanopore chips at single molecule resolution. *Nano Lett* 14, 1674-80. [doi:10.1021/nl5002873](https://doi.org/10.1021/nl5002873)
- 96) Hulpke S, Tampé R (2013) The MHC I loading complex: a multitasking machinery in adaptive immunity. *Trends Biochem Sci* 38, 412-20. [doi:10.1016/j.tibs.2013.06.003](https://doi.org/10.1016/j.tibs.2013.06.003)
- 97) Rangl M, Ebner A, Yamada J, Rankl C, Tampé R, Gruber HJ, Rexbach M, Hinterdorfer P (2013) Single-molecule analysis of the recognition forces underlying nucleo-cytoplasmic transport. *Angew Chem Int Ed* 52, 10356-9. [doi:10.1002/anie.201305359](https://doi.org/10.1002/anie.201305359)
- 98) Pollheimer P, Taskinen B, Scherfler A, Gusenkov S, Creus M, Wiesauer P, Zauner D, Schöffberger W, Schwarzingler C, Ebner A, Tampé R, Stutz H, Hytönen VP, Gruber HJ (2013) Reversible biofunctionalization of surfaces with a switchable mutant of avidin. *Bioconj Chem* 24, 1656-68. [doi:10.1021/bc400087e](https://doi.org/10.1021/bc400087e)
- 99) Baldauf C, Schulze K, Lueders P, Bordignon E, Tampé R (2013) In-situ spin labeling of His-tagged proteins: distance measurements under in-cell conditions. *Chemistry* 19, 13714-9. [doi:10.1002/chem.201301921](https://doi.org/10.1002/chem.201301921)
- 100) Parcej D, Guntrum R, Schmidt S, Hinz A, Tampé R (2013) Multicolour fluorescence-detection size-exclusion chromatography for structural genomics of membrane multiprotein complexes. *PLOS One* 8, e67112. [doi:10.1371/journal.pone.0067112](https://doi.org/10.1371/journal.pone.0067112)
- 101) Nürenberg E, Tampé R (2013) Tying up loose ends: ribosome recycling in eukaryotes and archaea. *Trends Biochem Sci* 38, 64-74. [doi:10.1016/j.tibs.2012.11.003](https://doi.org/10.1016/j.tibs.2012.11.003)
- 102) Labòria N, Wieneke R, Tampé R (2013) Control of nanomolar interaction and in-situ assembly of proteins in four dimensions by light. *Angew Chem Int Ed* 52, 848-53. [doi:10.1002/anie.201206698](https://doi.org/10.1002/anie.201206698)
- 103) Horner A, Goetz F, Tampé R, Klusmann E, Pohl P (2012) Mechanism for targeting the A-kinase anchoring protein AKAP18 to the membrane. *J Biol Chem* 287, 42495-501. [doi:10.1074/jbc.M112.414946](https://doi.org/10.1074/jbc.M112.414946)
- 104) Hulpke S, Baldauf C, Tampé R (2012) Molecular architecture of the MHC I peptide-loading complex: one tapasin molecule is essential and sufficient for antigen processing. *FASEB J* 26, 5071-80. [doi:10.1096/fj.12-217489](https://doi.org/10.1096/fj.12-217489)
- 105) Rossier O, Oceau V, Sibarita JB, Leduc C, Tessier B, Nair D, Gatterdam V, Destaing O, Albiges-Rizo C, Tampé R, Cognet L, Choquet D, Lounis B, Giannone G. (2012) Integrins β_1 and β_3 exhibit distinct dynamic nanoscale organizations inside focal adhesions. *Nat Cell Biol* 14, 1057-67. [doi:10.1038/ncb2588](https://doi.org/10.1038/ncb2588)

- 106) Hartmann J, Tran TV, Kaudeer J, Oberle K, Herrmann J, Quagliano I, Abel T, Cohnen A, Gatterdam V, Jacobs A, Wollscheid B, Tampé R, Watzl C, Diefenbach A, Koch J (2012) The stalk domain and the glycosylation status of the activating natural killer cell receptor NKp30 are important for ligand binding. *J Biol Chem* 287, 31527-39. [doi:10.1074/jbc.M111.304238](https://doi.org/10.1074/jbc.M111.304238)
- 107) Hulpke S, Tomioka M, Kremmer E, Ueda K, Abele R, Tampé R (2012) Direct evidence that the N-terminal extensions of the TAP complex act as autonomous interaction scaffolds for the assembly of the MHC I peptide-loading complex. *Cell Mol Life Sci* 69, 3317-27. [doi:10.1007/s00018-012-1005-6](https://doi.org/10.1007/s00018-012-1005-6)
- 108) Demirel Ö, Bangert I, Wolters D, Blanz J, Saftig P, Tampé R, Abele R (2012) The lysosomal polypeptide transporter TAPL is stabilized by interaction with LAMP-1 and LAMP-2. *J Cell Sci* 125, 4230-40. [doi:10.1242/jcs.087346](https://doi.org/10.1242/jcs.087346)
- 109) Hinz A, Tampé R (2012) ABC transporters and immunity: mechanism of self-defense. *Biochemistry* 51, 4981-9. [doi:10.1021/bi300128f](https://doi.org/10.1021/bi300128f)
- 110) Wu S, Avila-Sakar A, Kim JM, Booth DS, Greenberg CH, Rossi A, Liao M, Alian A, Griner SL, Juge N, Mergel CM, Chaparro-Riggers J, Strop P, Tampé R, Edwards RH, Stroud RM, Craik CS, Cheng Y (2012) Fabs enable single particle cryoEM studies of small proteins. *Structure* 20, 582-92. [doi:10.1016/j.str.2012.02.017](https://doi.org/10.1016/j.str.2012.02.017)
- 111) Wei R, Gatterdam V, Wieneke R, Tampé R*, Rant U* (2012) Stochastic sensing of proteins with receptor-modified solid-state nanopores. *Nat Nanotechnol* 7, 257-63. (*corr. author) [doi:10.1038/nnano.2012.24](https://doi.org/10.1038/nnano.2012.24)
– News & View in *Nature Nanotechnol* 7, 212-3.
- 112) Gatterdam V, Stoess T, Menge CM, Heckel A, Tampé R (2012) Caged glutathione – triggering protein interaction by light. *Angew Chem Int Ed* 51, 3726-9. [doi:10.1002/anie.201108073](https://doi.org/10.1002/anie.201108073)
- 113) Wycisk AI, Lin J, Loch S, Hobohm K, Funke J, Koch J, Skach WR, Mayerhofer PU, Tampé R (2011) Epstein-Barr viral BNLF2a protein hijacks the tail-anchored protein insertion machinery to block antigen processing by the transport complex TAP. *J Biol Chem* 286, 41402-12. [doi:10.1074/jbc.M111.237784](https://doi.org/10.1074/jbc.M111.237784)
- 114) Barthelme D, Dinkelaker S, Albers SV, Londei P, Ermler U, Tampé R (2011) Ribosome recycling depends on a mechanistic link between the FeS cluster domain and a conformational switch of the twin-ATPase ABCE1. *Proc Natl Acad Sci USA* 108, 3228-3233. [doi:10.1073/pnas.1015953108](https://doi.org/10.1073/pnas.1015953108)
- 115) Abele R, Tampé R (2011) The TAP translocation machinery in adaptive immunity and viral escape mechanisms. *Essays Biochem* 50, 249-64. [doi:10.1042/bse0500249](https://doi.org/10.1042/bse0500249)
- 116) Roizard S, Danelon C, Hassaine G, Piquet J, Schulze K, Hovius R, Tampé R, Vogel, H (2011) Activation of G-protein-coupled receptors in cell-derived plasma membranes supported on porous beads. *J Am Chem Soc* 133, 16868-74. [doi:10.1021/ja205302g](https://doi.org/10.1021/ja205302g)
- 117) Grunwald C, Schulze K, Giannone G, Cognet L, Lounis B, Choquet D, Tampé R (2011) Quantum yield optimized fluorophores for site-specific labeling and super-resolution imaging. *J Am Chem Soc* 133, 8090-8093. [doi:10.1021/ja200967z](https://doi.org/10.1021/ja200967z)
– Highlighted as Advance at the *Frontiers of Photochemical Sciences in the year 2011*
- 118) Schölz C, Parcej D, Ejsing CS, Robenek H, Urbatsch IL, Tampé R (2011) Specific lipids modulate the transporter associated with antigen processing (TAP). *J Biol Chem* 286, 13346-56. [doi:10.1074/jbc.M110.216416](https://doi.org/10.1074/jbc.M110.216416)
- 119) Zutz A, Hoffmann J, Hellmich UA, Glaubitz C, Ludwig B, Brutschy B, Tampé R (2011) Asymmetric ATP hydrolysis cycle of the heterodimeric multidrug ABC complex TmrAB from *Thermus thermophilus*. *J Biol Chem* 286, 7104-15. [doi:10.1074/jbc.M110.201178](https://doi.org/10.1074/jbc.M110.201178)
- 120) Herget M, Baldauf C, Schölz S, Parcej D, Wiesmüller KH, Tampé R, Abele R, Bordignon E (2011) Conformation of antigenic peptides bound to the ABC transporter TAP. *Proc Natl Acad Sci USA* 108, 1349-54. [doi:10.1073/pnas.1012355108](https://doi.org/10.1073/pnas.1012355108)

- 121) Schnell Ramos MS, Abele R, Grotemeyer MS, Nagy R, Tampé R, Tentsch D, Martinoia E (2011) Characterization of a transport activity for long-chain peptides in barley mesophyll vacuoles. *J Exp Bot* 62, 2403-10. [doi:10.1093/jxb/erq397](https://doi.org/10.1093/jxb/erq397)
- 122) Tampé R, Schleiff E (2011) Highlight: Membrane transport in light of structure, function, and evolution. *Biol Chem* 392, 3. [doi:10.1515/BC.2011.019](https://doi.org/10.1515/BC.2011.019)
- 123) Ghanem E, Fritzsche S, Al-Balushi M, Hashem J, Ghuneim L, Thomer L, Kalbacher H, van Endert P, Wiertz E, Tampé R, Springer S (2011) The transporter associated with antigen processing (TAP) is active in a post-ER compartment. *J Cell Sci* 123, 4271-9. [doi:10.1242/jcs.060632](https://doi.org/10.1242/jcs.060632)
- 124) Kleefen A, Pedone D, Grunwald C, Wei R, Firnkes M, Abstreiter G, Rant U, Tampé R (2010) Multiplexed parallel single transport recordings on nanopore arrays. *Nano Lett* 10, 5080-7. [doi:10.1021/nl1033528](https://doi.org/10.1021/nl1033528)
- 125) Baldauf C, Schrodtt S, Herget M, Koch J, Tampé R (2010) Single residue within the antigen translocation complex TAP controls the epitope repertoire by stabilizing a receptive conformation. *Proc Natl Acad Sci USA* 107, 9135-40. [doi:10.1073/pnas.1001308107](https://doi.org/10.1073/pnas.1001308107)
- 126) Parcej D, Tampé R (2010) ABC proteins in antigen translocation and viral inhibition. *Nat Chem Biol* 6, 572-80. [doi:10.1038/nchembio.410](https://doi.org/10.1038/nchembio.410)
- 127) Mitchell N, Ebner A, Hinterdorfer P, Tampé R, Howorka S (2010) Chemical tags mediate the orthogonal self-assembly of DNA strands into supramolecular structures. *Small* 6, 1732-5. [doi:10.1002/smll.201000790](https://doi.org/10.1002/smll.201000790)
- 128) Giannone G, Hosy E, Lévét F, Constals A, Schulze K, Sobolevsky AI, Rosconi MP, Gouaux E, Tampé R, Choquet D, Cognet L (2010) Dynamic superresolution imaging of endogenous proteins on living cells at ultra-high density. *Biophys J* 99, 1303-10. [doi:10.1016/j.bpj.2010.06.005](https://doi.org/10.1016/j.bpj.2010.06.005)
- 129) Grunwald C, Schulze K, Reichel A, Weiss VU, Piehler J, Wiesmüller KH, Tampé R (2010) *In situ* assembly of macromolecular complexes triggered by light. *Proc Natl Acad Sci USA* 107, 6146-51. [doi:10.1073/pnas.0912617107](https://doi.org/10.1073/pnas.0912617107)
- 130) Bhagawati M, Lata S, Tampé R, Piehler J. (2010) Native laser lithography of His-tagged proteins by uncaging of multivalent chelators. *J Am Chem Soc* 132, 5932-3. [doi:10.1021/ja1000714](https://doi.org/10.1021/ja1000714)
- 131) Kankate L, Werner U, Turchanin A, Großmann H, Götzhäuser A, Tampé R (2010) Protein resistant oligo(ethylene glycol) terminated self-assembled mono-layers of thiols on gold by vapor deposition in vacuum. *Biointerphases* 5, 30-6. [doi:10.1116/1.3407483](https://doi.org/10.1116/1.3407483)
- 132) Demirel Ö, Bangert I, Tampé R, Abele R (2010) Tuning the cellular trafficking of the lysosomal peptide transporter TAPL by its N-terminal domain. *Traffic* 11, 383-93. [doi:10.1111/j.1600-0854.2009.01021.x](https://doi.org/10.1111/j.1600-0854.2009.01021.x)
- 133) Herget M, Kreissig N, Kolbe C, Schölz C, Schulze K, Tampé R, Abele R (2009) Purification and reconstitution of the antigen transport complex TAP: a prerequisite for determination of peptide stoichiometry, ATP binding and hydrolysis. *J Biol Chem* 284, 33740-9. [doi:10.1074/jbc.M109.047779](https://doi.org/10.1074/jbc.M109.047779)
- 134) Abele R, Tampé R (2009) Peptide trafficking and translocation across membranes in cellular signaling and self-defense strategies. *Curr Opin Cell Biol* 21, 508-15. [doi:10.1016/j.ceb.2009.04.008](https://doi.org/10.1016/j.ceb.2009.04.008)
- 135) Tampé R (2009) Membrane transport and communication. Highlight: the gatekeepers of life yield their secrets. *Biol Chem* 390, 373-373. [doi:10.1515/BC.2009.109](https://doi.org/10.1515/BC.2009.109)
- 136) André T, Reichel A, Wiesmüller KH, Tampé R, Piehler J, Brock R (2009) Selectivity of competitive multivalent interactions at interfaces. *ChemBioChem* 10, 1878-87. [doi:10.1002/cbic.200900001](https://doi.org/10.1002/cbic.200900001)
- 137) Schölz C, Tampé R (2009) The peptide loading complex—Antigen translocation and MHC class I loading. *Biol Chem* 390, 783-94. [doi:10.1515/BC.2009.069](https://doi.org/10.1515/BC.2009.069)

- 138) Oancea G, O'Mara M, Bennett D, Tieleman DP, Abele R, Tampé R (2009) Structural arrangement of the transmission interface in the ABC transporter TAP critical in antigen binding and translocation. *Proc Natl Acad Sci USA* 106, 5551-6. [doi:10.1073/pnas.0811260106](https://doi.org/10.1073/pnas.0811260106)
- 139) Tang J, Ebner A, Kraxberger B, Leitner M, Hykollari A, Kepplinger C, Grunwald C, Tampé R, Gruber HJ, Sleytr UB, Ilk N, Hinterdorfer P (2009) Detection of metal binding sites on functional S-layer nanoarrays using single molecule force spectroscopy. *J Struct Biol* 168, 217-22. [doi:10.1016/j.jsb.2009.02.003](https://doi.org/10.1016/j.jsb.2009.02.003)
- 140) Brandes M, Willimann K, Bioley G, Eberl M, Luo M, Tampé R, Levy F, Romero P, Moser B (2009) Cross-presenting human $\gamma\delta$ T cells induce robust CD8⁺ $\alpha\beta$ T cell response. *Proc Natl Acad Sci USA* 106, 2307-12. [doi:10.1073/pnas.0810059106](https://doi.org/10.1073/pnas.0810059106)
- 141) Schleiff E, Tampé R (2009) Membrane proteins take center stage in Frankfurt. *Nat Chem Biol* 5, 135-9. [doi:10.1038/nchembio0309-135](https://doi.org/10.1038/nchembio0309-135)
- 142) Parcej D, Tampé R (2009) Solute-binding sites in ABC transporters for recognition, occlusion, and trans-inhibition. *ChemMedChem* 4, 25-8. [doi:10.1002/cmdc.200800328](https://doi.org/10.1002/cmdc.200800328)
- 143) Wruss J, Pollheimer PD, Meindl I, Reichel A, Schulze K, Schöfberger W, Piehler J, Tampé R, Blaas D, Gruber HJ (2008) Conformation of receptor adopted upon interaction with virus revealed by site-specific fluorescence quenchers and FRET-analysis. *J Am Chem Soc* 131, 5478-82. [doi:10.1021/ja807917t](https://doi.org/10.1021/ja807917t)
- 144) Zutz A, Gompf S, Schägger H, Tampé R (2008) Mitochondrial ABC-proteins in health and disease. *Biochim Biophys Acta* 1787, 681-90. [doi:10.1016/j.bbabi.2009.02.009](https://doi.org/10.1016/j.bbabi.2009.02.009)
- 145) Verweij MC, Koppers-Lalic D, Loch S, Klauschies F, de la Salle H, Lehner PJ, Mulder A, Knittler MR, Tampé R, Koch J, Rensing M, Wiertz EJHJ (2008) Structural and functional dissection of the interaction of the varicellovirus-encoded immune evasion protein UL49.5 with TAP. *J Immunol* 181, 4894-907. [doi:10.4049/jimmunol.181.7.4894](https://doi.org/10.4049/jimmunol.181.7.4894)
- 146) Buchholz K, Tinazli A, Kleefen A, Dorfner D, Pedone D, Rant U, Tampé R, Abstreiter G, Tornow M (2008) Silicon-on-insulator based nanopore cavity arrays for lipid membrane investigation. *Nanotechnology* 19, 445305. [doi:10.1088/0957-4484/19/44/445305](https://doi.org/10.1088/0957-4484/19/44/445305)
- 147) Watschinger K, Horak S, Schulze K, Obermair GJ, Wild C, Koschak A, Sinegger-Brauns MJ, Tampé R, Striessnig J (2008) Functional properties and modulation of extracellular epitope tagged Ca_v2.1 voltage-gated calcium channels. *Channels (Austin)* 2, 461-73. [doi:10.4161/chan.2.6.6793](https://doi.org/10.4161/chan.2.6.6793)
- 148) Artelsmair H, Kienberger F, Tinazli A, Schlapak R, Preiner J, Kada G, Wruss J, Kastner M, Zhu R, Hoelzl M, Rankl C, Howorka S, Blass D, Gruber HJ, Tampé R, Hinterdorfer P (2008) Atomic force microscopy-based nano-chip for the detection of pathogenic viruses. *SMALL* 4, 847-54. [doi:10.1002/sml.200700691](https://doi.org/10.1002/sml.200700691)
- 149) Turchanin A, Tinazli A, El-Desawy M, Großmann H, Schnietz M, Solak HH, Tampé R, Götzhäuser A (2008) Molecular self-assembly, chemical lithography, and biochemical tweezers: a path for the fabrication of functional nanoscale protein arrays. *Adv Materials* 20, 471-7. [doi:10.1002/adma.200702189](https://doi.org/10.1002/adma.200702189)
- 150) Burgdorf S, Schölz C, Kautz A, Tampé R, Kurts C (2008) Spatial and mechanistic separation of cross-presentation and endogenous antigen presentation. *Nat Immunol* 9, 558-66. [doi:10.1038/ni.1601](https://doi.org/10.1038/ni.1601)
- 151) Zhao C, Haase W, Tampé R, Abele R (2008) Peptide specificity and lipid activation of the lysosomal transport complex ABCB9 (TAPL). *J Biol Chem* 283, 17083-91. [doi:10.1074/jbc.M801794200](https://doi.org/10.1074/jbc.M801794200)
- 152) Koppers-Lalic D, Verweij MC, Lipinska AD, Reits EA, Koch J, Loch S, Rezende MM, Daus F, Bienkowska-Szewczyk K, Osterrieder N, Mettenleiter TC, Heemskerk MHM, Tampé R, Neefjes JJ, Rensing M, Rijsewijk FAM, Wiertz EJHJ (2008) Varicellovirus UL49.5 proteins differentially affect the function of the transporter associated with antigen processing TAP. *PLoS Pathogens* 4, e1000080. [doi:10.1371/journal.ppat.1000080](https://doi.org/10.1371/journal.ppat.1000080)

- 153) Ludden MJW, Mulder A, Schulze K, Subramaniam V, Tampé R, Reinhold DN, Huskens J (2008) Anchoring of histidine-tagged proteins to molecular printboards: self-assembly, thermodynamic modeling, and patterning. *Chemistry* 14, 2044-51. [doi:10.1002/chem.200701478](https://doi.org/10.1002/chem.200701478)
- 154) Loch S, Klauschies F, Schölz C, Verweij MC, Wiertz EJHJ, Koch J, Tampé R (2008) Signaling of a varicelloviral factor across the ER membrane induces destruction of the peptide-loading complex and immune evasion. *J Biol Chem* 283, 13428-36. [doi:10.1074/jbc.M800226200](https://doi.org/10.1074/jbc.M800226200)
- 155) Valiokas R, Klenkar G, Tinazli A, Reichel A, Tampé R, Piehler J, Liedberg B (2008) Self-assembled monolayers containing terminal mono-, bis-, and tris-nitrotriacetic acid groups: characterization and application. *Langmuir* 24, 4959-67. [doi:10.1021/la703709a](https://doi.org/10.1021/la703709a)
- 156) Hofacker M, Gompf S, Zutz A, Presenti C, Haase W, van der Does C, Model K, Tampé R (2007) Structural and functional fingerprint of the mitochondrial ABC transporter MDL1 from *Saccharomyces cerevisiae*. *J Biol Chem* 282, 33951-61.
- 157) Hahn CD, Tinazli A, Hölzl M, Leitner C, Frederix F, Lackner B, Müller N, Klampfl C, Tampé R, Gruber HJ (2007) Pragmatic studies on protein-resistant self-assembled monolayers. *Chemical Monthly* 138, 245-52.
- 158) Herget M, Oancea G, Schrod T, Karas M, Tampé R*, Abele R (2007) Mechanism of substrate sensing and signal transmission within an ABC Transporter—Use of a Trojan horse strategy. *J Biol Chem* 282, 3871-3880. (*corr. author)
- 159) Tinazli A, Piehler J, Beuttler M, Guckenberger R, Tampé R (2007) Native protein nanolithography that can write, read, and erase. *Nat Nanotech* 2, 220-5. [doi:10.1038/nnano.2007.63](https://doi.org/10.1038/nnano.2007.63)
- 160) Hahn CD, Leitner C, Weinbrenner T, Schlapak R, Tinazli A, Tampé R, Lackner B, Steindl C, Hinterdorfer P, Gruber HJ, Hölzl M (2007) Self-assembled monolayers with latent aldehydes for protein immobilization. *Bioconj Chem* 18, 247-53.
- 161) Ludden MJW, Mulder A, Tampé R, Reinholdt DN, Huskens J (2007) Molecular printboards as a general platform for protein immobilization: a supramolecular solution to nonspecific adsorption. *Angew Chem Int Ed* 46, 4104-7.
- 162) Wissler J, Mulder A, Tampé R, Bolte M (2007) 5,5'-Dimethyl-4,4'-bis[2-(2-methyl-3-thienyl)cyclopentenyl]-2,2'-bithiophene. *Acta Cryst* E63, o2813-4.
- 163) Plewnia G, Schulze K, Hunte C, Tampé R, Koch J (2007) Modulation of the antigenic peptide transporter TAP by recombinant antibodies directed against the C-terminus of TAP1. *J Mol Biol* 369, 95-107.
- 164) Hölzl M, Tinazli A, Leitner C, Hahn CD, Lackner B, Tampé R, Gruber HJ (2007) Protein-resistant self-assembled monolayers on gold with latent aldehyde functions. *Langmuir* 23, 5571-7.
- 165) Barthelme D, Scheele U, Dinkelaker S, Janoschka A, MacMillan F, Albers SV, Driessen AJM, Salamone-Stagni M, Bill E, Meyer-Klaucke W, Schünemann V, Tampé R (2007) Structural organization of essential iron-sulfur clusters in the evolutionarily highly conserved ATP-binding cassette protein ABCE1. *J Biol Chem* 282, 14598-607.
- 166) Gompf S, Zutz A, Hofacker M, Haase W, van der Does C, Tampé R (2007) Insights in the ABC transporter MDL1 by switching it from posttranslational mitochondrial import to ER insertion. *FEBS J* 274, 5298-310.
- 167) Parcej D, Tampé R (2007) Caught in the act: an ABC transporter on the move. *Structure* 15, 1028-30.
- 168) Nikles D, Tampé R (2007) Targeted degradation of ABC transporters in health and diseases. *J Bioenerg Biomembr* 39, 489-97.
- 169) Demirel Ö, Waibler Z, Kalinke U, Grünebach F, Appel S, Brossart P, Hasilik A, Tampé R, Abele R (2007) Identification of a lysosomal peptide transport system induced during dendritic cell development. *J Biol Chem* 282, 37836-43.

- 170) Dietz J, Koch J, Kaur A, Raja C, Stein S, Grez M, Pustowka A, Mensch S, Ferner J, Tampé R, Divita G, Méley Y, Schwalbe H, Dietrich U (2007) Inhibition of HIV-1 by a peptide ligand of the genomic RNA packaging signal Ψ . *ChemMedChem* 3, 749-55. [doi:10.1002/cmdc.200700194](https://doi.org/10.1002/cmdc.200700194)
- 171) van der Does C, Presenti C, Schulze K, Dinkelaker S, Tampé R (2006) Kinetics of the ATP hydrolysis cycle of the nucleotide-binding domain of MDL1 studied by a novel site-specific labeling technique. *J Biol Chem* 281, 5694-701.
- 172) Koch J, Tampé R (2006) The macromolecular peptide-loading complex in MHC class I-dependent antigen processing. *Cell Mol Life Sci* 63, 653-62.
- 173) Abele R, Tampé R (2006) Modulation of the antigen transport machinery TAP by friends and enemies. *FEBS Lett* 580, 1156-63.
- 174) Albers SV, Jonuscheit M, Dinkelaker S, Ulrich T, Kletzin A, Tampé R, Driessen AJ, Schleper C. (2006) Production of recombinant and tagged proteins in the hyperthermophilic archaeon *Sulfolobus solfataricus*. *Appl Environ Microbiol* 72, 102-11.
- 175) Schrodtt S, Koch J, Tampé R (2006) Membrane topology of the transporter associated with antigen processing (TAP1) within an assembled functional peptide-loading complex. *J Chem Biol* 281, 6455-62.
- 176) Herget M, Tampé R (2006) Intracellular peptide transporters in human – Compartmentalization of the 'peptidome'. *Pflugers Arch* 453, 591-600.
- 177) Schulze K, Mulder A, Tinazli A, Tampé R (2006) Controlling the activity of the 20S proteasome complex by synthetic gatekeepers. *Angew Chem Int Ed* 45, 5702-5.
- 178) Zhao C, Tampé R, Abele R (2006) TAP and TAP-like—Brothers in arms? *Naunyn Schmiedebergs Arch Pharmacol* 372, 444-50.
- 179) Lata S, Gavutis M, Tampé R, Piehler J (2006) Specific and stable fluorescence labeling of histidine-tagged proteins for dissecting multi-protein complex formation. *J Am Chem Soc* 128, 2365-72.
- 180) Valiokas R, Klenkar G, Tinazli A, Tampé R, Liedberg B, Piehler J (2006) Differential protein assembly on micropatterned surfaces with tailored molecular and surface multivalency. *ChemBioChem* 7, 1325-9.
- 181) Petzinger E, Burckhardt G, Tampé R (2006) A multi-faceted world of transporters. *Naunyn Schmiedebergs Arch Pharmacol* 372, 383-4.
- 182) Klenkar G, Valiokas R, Lundstrom I, Tinazli A, Tampé R, Piehler J, Liedberg B (2006) Piezo dispensed density microarrays of multivalent chelating thiols for dissecting complex protein-protein interactions. *Anal Chem* 78, 3643-50.
- 183) Aisenbrey C, Sizun C, Koch J, Bechinger B, Tampé R (2006) Structure and dynamics of the membrane-associated immuno-evasin ICP47 of herpes simplex virus. *J Biol Chem* 281, 30365-72.
- 184) Koch J, Guntrum R, Tampé R (2006) The first N-terminal transmembrane helix of each subunit of the antigenic peptide transporter TAP is essential for independent tapasin binding. *FEBS Lett* 580, 4091-6.
- 185) Wissler J, Mulder A, Tampé R, Bolte M (2006) 1,2-Bis(5-chloro-2-methyl-3-thienyl)cyclopentene. *Acta Cryst* E62, o5649-50.
- 186) Ernst R, Koch J, Horn C, Tampé R, Schmitt L (2006) Engineering ATPase activity in the isolated ABC-cassette of human TAP1. *J Biol Chem* 281, 27471-80.
- 187) Pretz MG, Albers SV, Schuurman-Wolters G, Tampé R, Driessen AJM, van der Does C (2006) Thermodynamics of the ATPase cycle of GlcV, the nucleotide binding domain of the glucose ABC transporter of *Sulfolobus solfataricus*. *Biochemistry* 45, 15056-67.

- 188) van der Sluis EO, Nouwen N, van der Does C, de Keyzer J, Koch J, Tampé R, Diessen AJM (2005) Molecular basis of SecA binding and insertion at SecYEG. *J Mol Biol* 361, 839-49.
- 189) Koppers-Lalic D, Reits EA, Rensing ME, Lipinska AD, Abele R, Koch J, Rezende MM, Admiraal P, van Leeuwen D, Bienkowska-Szewezyk K, Mettenleiter TC, Rijsewijk FAM, Tampé R, Neefjes J, Wiertz EJHJ (2005) Varicelloviruses avoid T cell recognition by UL49.5-mediated inactivation of TAP. *Proc Natl Acad Sci USA* 102, 5144-9.
- 190) Ackerman A, Kyritsis C, Tampé R, Cresswell P (2005) Soluble exogenous antigens readily access the endoplasmic reticulum in dendritic cells. *Nat Immunol* 6, 107-13.
- 191) Wolters JC, Abele R, Tampé R (2005) Selective and ATP-dependent translocation of peptides by the homodimeric ABC transporter TAP-like (ABCB9). *J Biol Chem* 280, 23631-6.
- 192) Loch S, Tampé R (2005) Viral evasion of the MHC class I antigen-processing machinery. *Pflügers Archiv – Eur J Physiol* 451, 409-17.
- 193) Lata S, Reichel A, Brock R, Tampé R, Piehler J (2005) High-affinity adaptors for switchable recognition of histidine-tagged proteins. *J Am Chem Soc* 127, 10205-15.
- 194) Tinazli A, Tang J, Valiokas R, Picuric S, Lata S, Piehler J, Liedberg B, Tampé R (2005) High-affinity chelator thiols for switchable and oriented immobilization of histidine-tagged proteins: a generic platform for protein chip technologies. *Chemistry* 11, 5249-59.
- 195) Koch J, Guntrum R, Tampé R (2005) Exploring the minimal functional unit of the transporter associated with antigen processing. *FEBS Lett* 579, 4413-6.
- 196) Schölz C, Tampé R (2005) The intracellular antigen transport machinery TAP in adaptive immunity and virus escape mechanisms. *J Bioenerg Biomembr* 37, 509-15.
- 197) Koch J, Guntrum R, Heintke S, Kyritsis C, Tampé R (2004) Functional dissection of the transmembrane domains of the transporter associated with antigen processing (TAP). *J Biol Chem* 279, 10142-7.
- 198) Beismann-Driemeyer S, Tampé R (2004) Function of the transporter machinery TAP in the cellular immune system. *Angew Chemie Int Ed* 43, 4014-31.
- 199) Gamsjaeger R, Wimmer B, Kahr H, Tinazli A, Picuric S, Lata S, Tampé R, Maulet Y, Gruber H, Hinterdorfer P, Romanin C (2004) Oriented binding of the His₆-tagged carboxyl-tail of the α 1-subunit of the L-type Ca²⁺ channel to NTA-thiols covalently attached on gold. *Langmuir* 20, 5885-90.
- 200) Abele R, Tampé R (2004) The ABCs of immunology—Structure and function of the transporter associated with antigen processing (TAP). *Physiology (Bethesda)* 19, 216-24.
- 201) Hutschenreiter S, Tinazli A, Model K, Tampé R (2004) Two-substrate association with the proteasome at single-molecule level. *EMBO J* 23, 2488-97.
- 202) van der Does C, Tampé R (2004) Changing orders – Primary and secondary membrane transporters revised. *ChemBioChem* 5, 1171-5.
- 203) Doeven MK, Abele R, Tampé R, Poolman B (2004) The binding specificity of OppA determines the selectivity of the oligopeptide ABC transporter. *J Biol Chem* 279, 32301-7.
- 204) Chen M, Abele R, Tampé R (2004) Functional non-equivalence of ABC signature motifs in the transporter associated with antigen processing (TAP). *J Biol Chem* 279, 46073-81.
- 205) van der Does C, Tampé R (2004) How do ABC transporters drive transport? *Biol Chem* 385, 927-33.
- 206) Peters B, Bulik S, Tampé R, van Endert PM, Holzhütter HG (2003) Identifying MHC class I epitopes by predicting the TAP transport efficiency of epitope precursors. *J Immunol* 171, 1741-9.

- 207) Janas E, Hofacker M, Chen M, Gompf S, van der Does C, Tampé R (2003) The ATPase Cycle of the nucleotide-binding domain of the mitochondrial ABC transporter Mdl1p. **J Biol Chem** 278, 26862-9.
- 208) Chen M, Abele R, Tampé R (2003) Peptides induce ATP hydrolysis at both subunits of the transporter associated with antigen processing (TAP). **J Biol Chem** 278, 29686-92.
- 209) Hutschenreiter S, Neumann L, Rädler U, Schmitt L, Tampé R (2003) Metal-chelating amino acids as building blocks for synthetic receptors sensing metal ions and histidine-tagged proteins. **ChemBioChem** 4, 1340-4.
- 210) Ackerman AL, Kyritsis C, Tampé R, Cresswell P (2003) Early phagosomes and pinosomes constitute a unique cellular compartment sufficient for the cross presentation of exogenous antigens. **Proc Natl Acad Sci USA** 100, 12889-12894.
- 211) Lankat-Buttgereit B, Tampé R (2002) The transporter associated with antigen processing (TAP): Function and implications in human diseases. **Physiol Rev** 82, 187-204.
- 212) Bauer B, Tampé R (2002) Herpes viral proteins blocking the transporter associated with antigen processing—From genes to function and structure. **Curr Top Microbiol Immunol** 269, 85-101.
- 213) Thess A, Hutschenreiter S, Tampé R, Baumeister W, Guckenberger R (2002) Orientation of functional proteasomes at metal-chelating lipid interfaces and their two-dimensional crystallization **J Biol Chem** 277, 36321-8.
- 214) Schmitt L, Tampé R (2002) Structure and mechanism of ABC transporters. **Curr Opin Struct Biol** 12, 754-60.
- 215) Neumann L, Abele R, Tampé R (2002) Thermodynamics of peptide binding to the transporter associated with antigen processing (TAP). **J Mol Biol** 324, 965-73.
- 216) Heintke S, Chen M, Ritz U, Lankat-Buttgereit B, Koch J, Abele R, Seliger S, Tampé R (2002) Functional cysteine-less subunits of the transporter associated with antigen processing (TAP1 and TAP2) by de novo gene assembly. **FEBS Lett** 533, 42-6.
- 217) Seliger B, Schreiber K, Delp K, Meissner M, Hammers S, Reichert T, Pawlischko K, Tampé R, Huber C (2001) Downregulation of the constitutive tapasin expression in human tumor cells of distinct origins and its transcriptional upregulation by cytokines. **Tissue Antigens** 57, 39-45.
- 218) Lange H, Perlitz C, Abele R, Tampé R, Dietel M, Schadendorf D, Sinha P (2001) Enhanced expression of human ABC-transporter TAP is associated with cellular resistance to mitoxantrone. **FEBS Lett** 502, 179-84.
- 219) Busch K, Tampé R (2001) Single molecules research on surfaces: from analytics to construction. **J Biotechnology** 82, 3-24.
- 220) Gorbulev S, Abele R, Tampé R (2001) Allosteric crosstalk between peptide-binding, transport, and ATP hydrolysis of the ABC transporter TAP. **Proc Natl Acad Sci USA** 98, 3732-7.
- 221) Kyritsis C, Gorbulev S, Hutschenreiter S, Abele R, Tampé R (2001) Molecular mechanism and structural aspects of TAP inhibition by the cytomegalovirus protein US6. **J Biol Chem** 276, 48031-9.
- 222) Seliger B, Ritz U, Abele R, Bock M, Tampé R, Huber C, Ferrone S (2001) Immune escape of melanoma: first evidence of structural alterations in two distinct components of the MHC class I antigen-processing pathway. **Cancer Res** 61, 8647-50.
- 223) Lapinski PE, Miller GG, Tampé R, Raghavan M (2000) Pairing of the nucleotide binding domains of the transporter associated with antigen processing. **J Biol Chem** 275, 6831-40.
- 224) Schmitt L, Ludwig M, Gaub HE, Tampé R (2000) A metal-chelating microscopy tip as a new toolbox for single-molecule experiments by atomic force microscopy. **Biophys J** 78, 3275-85.

- 225) Schendel DJ, Falk CS, Nöbner E, Maget B, Kressenstein S, Urlinger S, Tampé R, Bansbacher B (2000) Gene transfer of human interferon gamma complementary DNA into a renal cell carcinoma enhances MHC-restricted cytotoxic T-lymphocyte recognition but suppresses non-MHC-restricted effector cell activity. *Gene Therapy* 7, 950-9.
- 226) Schmitt L, Tampé R (2000) Affinity, specificity, diversity—A challenge for the ABC-transporter TAP in cellular immunity. *ChemBioChem* 1, 16-35.
- 227) Rädler U, Mack J, Persike N, Jung G, Tampé R (2000) A novel approach to create tethered lipid membranes via the NTA-histidine system. *Biophys J* 79, 3144-52.
- 228) Detmers JM, Abele R, Lanfermeijer FC, Jack R, Konings WN, Tampé R, Poolman B (2000) Combinatorial peptide libraries reveal the ligand binding properties of the oligopeptide receptor OppA of *Lactococcus lactis*. *Proc Natl Acad Sci USA* 97, 12487-92. [doi:10.1073/pnas.2203087979](https://doi.org/10.1073/pnas.2203087979)
- 229) Uebel S, Tampé R (1999) Specificity of the proteasome and the TAP transporter. *Curr Opin Immunol* 11, 203-8.
- 230) Dorn IT, Escherich R, Seemüller E, Guckenberger R, Tampé R (1999) High-resolution AFM-imaging and mechanistic analysis of the 20S proteasome. *J Mol Biol* 288, 1027-37.
- 231) Abele R, Tampé R (1999) Function of the TAP transport complex in the cellular immune recognition. *Biochim Biophys Acta* 1461, 405-19.
- 232) Pfänder R, Neumann L, Zweckstetter M, Seger C, Holak TA, Tampé R (1999) Structure of the active domain of the herpes simplex virus protein ICP47 in water/sodium dodecyl sulfate solution determined by nuclear magnetic resonance spectroscopy. *Biochemistry* 38, 13692-8.
- 233) Lankat-Buttgereit B, Tampé R (1999) The transporter associated with antigen processing TAP: Structure and function. *FEBS Lett* 464, 108-12.
- 234) Neumann L, Tampé R (1999) Kinetic of peptide binding to the transport complex TAP—Evidence for structural rearrangements induced by substrate binding. *J Mol Biol* 294, 1203-13.
- 235) Seliger B, Harders C, Lohmann S, Momburg F, Urlinger S, Tampé R, Huber C (1998) Down-regulation of the MHC class I antigen-processing machinery after oncogenic transformation of murine fibroblasts. *Eur J Immunol* 28, 122-33.
- 236) Dorn IT, Hofmann UG, Peltonen J, Tampé R (1998) Diacetylene chelator lipid as support for immobilization and imaging of proteins by scanning force microscopy. *Langmuir* 14, 6620-4.
- 237) Dorn IT, Neumaier KR, Tampé R (1998) Molecular recognition of histidine-tagged molecules by chelator lipids monitored by fluorescence energy transfer and correlation spectroscopy. *J Am Chem Soc* 120, 2753-63.
- 238) Rädler U, Heiz C, Luisi PL, Tampé R (1998) Base pair formation of self-organizing RNA-amphiphiles within two-dimensions. *Langmuir* 14, 6620-4.
- 239) Dorn IT, Pawlitschko K, Pettinger SC, Tampé R (1998) Orientation and two-dimensional organization of proteins at chelator lipid interfaces. *Biol Chem* 379, 1151-9.
- 240) Dietrich C, Merkel R, Tampé R (1997) Diffusion measurement of fluorescence labeled amphiphilic molecules with a standard fluorescence microscope. *Biophys J* 72, 170110.
- 241) Beinert D, Neumann L, Uebel S, Tampé R (1997) Structural changes of ICP47, the viral inhibitor of TAP, induced by membrane association. *Biochemistry* 36, 4694-700.
- 242) Seliger B, Höhne A, Jung D, Kallfetz M, Knuth A, Jaeger E, Bernhard H, Momburg F, Tampé R, Huber C (1997) Expression and function of the peptide transporter in escape variants of human renal cell carcinomas. *Exp Hematology* 25, 608-14.
- 243) Zeidler R, Eißner G, Meißner P, Uebel S, Tampé R, Lazis S, Hammerschmidt W (1997) Downregulation of TAP1 in B lymphocytes by cellular and Epstein-Barr virus-encoded interleukin-10. *Blood* 90, 2390-7.

- 244) Ortmann B, Copeman J, Sadasivan B, Herberg J, Tampé R, Trowsdale J, Cresswell P (1997) Multivalent association of MHC class I-tapasin complexes with the transporter associated with antigen processing. *Science* 277, 1306-9.
- 245) Urlinger S, Kuchler K, Meyer TH, Uebel S, Tampé R (1997) Intracellular location, complex formation, and function of the transporter associated with antigen processing (TAP) in yeast. *Eur J Biochem* 245, 266-72.
- 246) Vives-Pi M, Vargas F, Costa M, Sospedra M, Somoza N, Obiols G, Tampé R, Trowsdale J, James RFL, Pujol-Borrell R (1997) Proteasome subunits, low molecular mass polypeptides-2 and -7 (LMP2 & LMP7) are hyperexpressed by target cells in autoimmune thyroid disease (AITD) but not in insulin dependent diabetes mellitus (IDDM): a clue to pathogenesis? *Tissue Antigens* 50, 153-63.
- 247) Neumann L, Krass W, Uebel S, Jung G, Tampé R (1997) Active domain of the Herpes virus protein ICP47 - a potent inhibitor of the transporter associated with antigen processing. *J Mol Biol* 272, 484-92.
- 248) Wagner D, Hofmann UG, Dorn I, Schmitt L, Tampé R, Gaub HE (1997) Anomalous pH dependence of the coexistence pressure of the polymerizable two-chain N-lipid methyl-bis(pentacosadiinoyl-oxyethyl)-amine. *Eur Biophys J* 26, 271-5.
- 249) Uebel S, Plantinga T, Weber PJA, Beck-Sickinger AG, Tampé R (1997) Peptide binding and photo-crosslinking to detergent solubilized and to reconstituted transporter associated with antigen processing (TAP). *FEBS Lett* 416, 359-63.
- 250) Uebel S, Kraas W, Kienle S, Wiesmüller KH, Jung G, Tampé R (1997) Recognition principle of TAP as disclosed by combinatorial peptide libraries. *Proc Natl Acad Sci USA* 94, 8976-81.
- 251) White CA, Thomson SA, Cooper L, van Endert PM, Tampé R, Coupar B, Qiu L, Parsons PG, Moss DJ, Khanna R (1997) Constitutive transduction of peptide transporter and HLA genes restores antigen-processing function and cytotoxic T-cell-mediated immune recognition of human melanoma cells. *Int J Cancer* 75, 590-5.
- 252) Schmitt L, Bohanon TM, Denzinger S, Ringsdorf H, Tampé R (1996) Specific protein docking to chelator lipid monolayers monitored by FT-IR at the air-water interface. *Angew Chemie Int Ed* 35, 317-20.
- 253) Dietrich C, Boscheinen O, Scharf KD, Schmitt L, Tampé R (1996) Functional immobilization of a DNA-binding protein at membrane interfaces via specific binding to a synthetic chelator lipid. *Biochemistry* 35, 1100-5.
- 254) Chen HL, Gabrilovich D, Virmani A, Tampé R, Girgis KR, Gazdar AF, Carbone DP (1996) A functionally defective allele of TAP1 results in loss of MHC class I antigen presentation in a human lung cancer. *Nature Genetics* 13, 210-3.
- 255) Ehring B, Meyer TH, Eckerskorn C, Lottspeich F, Tampé R (1996) Effects of MHC-encoded subunits on the peptidase and proteolytic activities of human 20S proteasomes: Cleavage of proteins and antigenic peptides. *Eur J Biochem* 235, 404-15.
- 256) Seliger B, Höhne A, Knuth A, Bernhard H, Meyer T, Tampé R, Momburg F, Huber C (1996) Analysis of the major histocompatibility complex class I antigen presentation machinery in normal and malignant renal cells: evidence for deficiencies associated with transformation and progression. *Cancer Research* 56, 1756-60.
- 257) Schmitt L, Tampé R (1996) Synthesis and characterization of ATP-lipids: protein anchor and energy source in two dimensions. *J Am Chem Soc* 118, 5532-45.
- 258) Ahn K, Meyer TH, Uebel S, Sempé P, Djaballah H, Peterson PA, Früh K, Tampé R (1996) Molecular mechanism and species specificity of TAP inhibition by Herpes simplex virus protein ICP47. *EMBO J* 15, 3247-55.

- 259) Seliger B, Höhne A, Knuth A, Bernhard H, Ehring B, Tampé R, Huber C (1996) Reduced membrane major histocompatibility complex class I density and stability in a subset of human renal cell carcinomas with low TAP and LMP expression. **Clinical Cancer Res** 2, 1427-33.
- 260) Gritsch S, Neumaier K, Schmitt L, Tampé R (1995) Engineered fusion molecules at chelator lipid interfaces imaged by reflection interference contrast microscopy (RICM) **Biosensors Bioelectronics** 10, 805-12.
- 261) Dietrich C, Tampé R (1995) Charge determination of membrane molecules in polymer-supported lipid layers. **Biochim Biophys Acta** 1238, 183-91.
- 262) Dietrich C, Schmitt L, Tampé R (1995) Molecular organization of histidine-tagged biomolecules at self-assembled lipid interfaces using a novel class of chelator lipids. **Proc Natl Acad Sci USA** 92, 9014-8.
- 263) Uebel S, Meyer TH, Kraas W, Kienle S, Jung G, Wiesmüller KH, Tampé R (1995) Requirements for peptide binding to the human transporter associated with antigen processing revealed by peptide scans and complex peptide libraries. **J Biol Chem** 270, 18512-6.
- 264) Früh K, Ahn K, Djaballah H, Sempé P, van Endert PM, Tampé R, Peterson PA, Yang Y (1995) A viral inhibitor of peptide transporters for antigen presentation. **Nature** 375, 415-8.
- 265) Schmitt L, Dietrich C, Tampé R (1994) Synthesis and characterization of chelator-lipids for reversible immobilization of engineered proteins at self-assembled lipid interfaces. **J Am Chem Soc** 116, 8485-91.
- 266) Kühner M, Tampé R, Sackmann E (1994) Lipid mono- and bilayer supported on polymer films— composite polymer-lipid films on solid substrates. **Biophys J** 67, 217-26.
- 267) Müller KM, Ebensperger E, Tampé R (1994) Nucleotide binding to the hydrophilic, C-terminal part of the human transporter associated with antigen processing (TAP). **J Biol Chem** 269, 14032-7.
- 268) Meyer TH, van Endert PM, Uebel S, Ehring B, Tampé R (1994) Functional expression and purification of the transporter associated with antigen processing in insect cells. **FEBS Lett** 351, 443-7.
- 269) van Endert PM, Tampé R, Meyer TH, Tisch R, Bach JF, McDevitt HO (1994) A sequential model of peptide binding and transport by the transporters associated with antigen processing. **Immunity** 1, 491-500.
- 270) Clover LM, Sargent IL, Townsend A, Tampé R, Redman CWG (1994) Expression of TAP1 by human trophoblast. **Eur J Immunol** 25, 543-8.
- 271) Brink G, Schmitt L, Tampé R, Sackmann E (1994) Self-assembly of covalently anchored phospholipid supported membranes by use of DODA-Suc-NHS-lipids. **Biochim Biophys Acta** 1196, 227-30.
- 272) Tampé R, von Lukas A, Galla HJ (1991) Glycophorin induced cholesterol-phospholipid-domains in dimyristoylphosphatidylcholine bilayer vesicles. **Biochemistry** 30, 4909-16.
- 273) Tampé R, Galla HJ (1991) Synergistic effects of Ca²⁺ and wheat germ agglutinin on the lamellar-hexagonal (H_{II}) phase transition of glycophorin containing egg phosphatidylethanolamine membranes. **Eur J Biochem** 199, 187-93.
- 274) Tampé R, McConnell HM (1991) Kinetics of antigenic peptide binding to the class II MHC molecule IA^d. **Proc Natl Acad Sci USA** 88, 4661-45.
- 275) Tampé R, Clark BR, McConnell HM (1991) Energy transfer between two peptides bound to one MHC class II molecule. **Science** 254, 87-9.
- 276) Tampé R, Tyvoll D, McConnell HM (1991) Reactions of the subunits of the class II major histocompatibility complex molecule IA^d. **Proc Natl Acad Sci USA** 88, 10667-70.

- 277) Tampé R, Robitzki A, Galla HJ (1989) Interaction between glycoporphin and a spin labeled cholesterol analogue in reconstituted dimyristoylphosphatidylcholine bilayer vesicles. ***Biochim Biophys Acta*** 982, 41-6.
- 278) Tampé R, Winter A, Wohlfart P, Becker J, Galla HJ (1989) Reconstitution and EPR-spectroscopic characterization of glycoporphin containing phospholipid vesicles. ***Chem Phys Lipids*** 51, 91-103.
- 279) Ollmann M, Tampé R, Winter A, Wohlfart P, Galla HJ (1988) Interaction of ganglioside and glycoporphin carbohydrates with membrane surfaces. ***Ber Bunsenges Phys Chem*** 92, 982-5.

Patents

- 1) Lata S, Tampé R, Piehler (2005) Multivalent chelators for modifying and organizing of target molecules. PCT/EP2005/008124 & WO2006013042 A2
- 2) Tampé R (2000) Switchable biochemical tweezers and synthetic receptors for the molecular organization and manipulation of biomolecules. DE100 64 896.7; PCT/EP01/15210
- 3) Tampé R (2002) Switchable biochemical tweezers and synthetic receptors for the molecular organization and manipulation of biomolecules. WO 2002051794 A2
- 4) Baldauf C, Schulze K, Bordingon E, Tampé R (2011) Highly affine multivalent chelator compounds (MCHs) and their use for the structural and functional analysis of target molecules. PCT/EP2011/052451

Books, Book Articles, Editorials

- 1) Tampé R (2015) Membrane Transport and Communication in Frankfurt: Speakers' Summary. *Biol Chem* 396, 949-54. [doi:10.1515/hsz-2015-0211](https://doi.org/10.1515/hsz-2015-0211)
- 2) Tampé R (2009) Membrane transport and communication. Highlight: the gatekeepers of life yield their secrets. *Biol Chem* 390, 673.
- 3) Beismann-Driemeyer S, Tampé R (2002) The peptide transporter TAP in cellular immunity and virus persistence. *Membrane Transporter Diseases* Broer and Wagner, Eds, Kluwer Academic/Plenum Publishers, New York, pp 319-338.
- 4) Lankat-Buttgereit B, Tampé R (2002) The transporter associated with antigen processing (TAP): A peptide transport and loading complex essential for cellular immune response. *ABC Proteins: From Bacteria to Man* (eds. I.B. Holland, K. Kuchler, C. Higgins, S. Cole). Academic Press Ltd, London.
- 5) Uebel S, Wiesmüller KH, Jung G, Tampé R (1999) Peptide libraries in cellular immune recognition. *Current Topics in Microbiology and Immunology* eds. Winnacker, Wong & Famulok, Springer, Heidelberg, pp 1-27.
- 6) Tampé R, Urlinger S, Pawlitschko K, Uebel S (1997) The transporter associated with antigen processing (TAP). *Unusual Secretory Pathways: From Bacteria to Man* eds. Kuchler, Rubartelli & Holland, Springer, New York, pp 115-136.
- 7) Uebel S, Tampé R (1997) Processing and selection of antigens by the MHC-encoded peptide transporter TAP. *Symposium in Immunology VI - Vaccination* eds. Eibl, Huber, Peter & Wahn, Springer, New York, pp 155-163.
- 8) Tampé R, Dietrich C, Gritsch S, Elender G, Schmitt L (1996) Biofunctionalized membranes on solid surfaces. *Nanofabrication and Biosystems: Frontiers and Challenges* eds. Hoch, Jelinski, Craighead, Cambridge University Press, pp 201-221.
- 9) Jung G, Niedermann G, Eichmann K, Uebel S, Tampé R, Walden P, Ihlenfeldt HG, Kraas W, Kienle S, Wiesmüller KH (1996) Processing, transport, and MHC restricted presentation of antigens studied by peptide libraries. *Peptides: Chemistry, Structure, and Biology* eds. Kaumaya & Hodges, Mayflower Scientific Ltd, pp 761-763.

Abstracts and Proceedings (>500) are not listed