

CURRICULI VITAE - DAGMAR ZWEYTICK

born on June 4th 1968 in Graz, Styria (Austria), Austrian citizen, married, two children

Present academic position:

Associate Professor at the Institute of Molecular and Biosciences, Biophysics Division, KFU Graz,
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Education and scientific career:

1978-1986: Gymnasium, Graz

2.6.1986: Final examination with distinction

1986-1995: Study of technical chemistry at the Technical University, Graz, Austria

1994-1995: Diploma thesis "Export of Phosphatidylethanolamine of mitochondria of permeabilized cells of the yeast *Saccharomyces cerevisiae*" at the Dep. of Biochemistry and Food Chemistry, Technical University, Graz (Supervisor: Prof. Günther Daum)

13.1.1995: Graduation to Dipl. Ing. (MSc)

1995-1999: Doctoral thesis "Involvement of lipid particles in the sterol metabolism of the yeast" at the Dep. of Biochemistry and Food Chemistry, Technical University, Graz (Supervisor: Prof. Günther Daum)

1997-1999: Employment as assistant during the doctoral thesis

2.6.1999: Dr. techn. (Viva Voce) with distinction

1999-2002: Maternity Leave (Twins)

2002-2005: Postdoctoral Fellow at the Institute of Biophysics and Nanosystems Research of the Austrian Academy of Sciences, Graz, Austria (Univ. Doz. Dipl.-Ing. Dr. Karl Lohner)

2006-2008: Research Scientist

2008-2012: Permanent position as Senior Research Scientist at IBN, Austrian Academy of Sciences

2008-2012 Project leader FWF P20760-B11

2012-2018: Assistant Professor at the Institute of Molecular Biosciences, Biophysics Division, Karl Franzens University of Graz

2013-ongoing Teaching activity at University of Graz

2012-2016 Project leader FWF P24608-B23

2016-ongoing Project leader FFG Bridge 1 855671

October 2017 Habilitation "Venia docendi" Biochemistry and Biophysics

2018- Associate Professor (permanent position) at Institute of Molecular Biosciences, Biophysics Division, Karl Franzens University of Graz

Professional memberships: ÖGMBT (Austrian Society for Molecular Biosciences and Biotechnology), ÖBG (Biophysics Austria), BioTechMed Vollmitgliedschaft, Mitglied Ethikkommission (KFU Graz).

Research interests: Design of host defense derived peptides as new antibiotic and antiseptic therapeutics against various pathogenic bacteria, as well as new anticancer agents; lipidomics of cancer and non-cancer cells; peptide membrane interactions; *in model* (membrane mimetic) and *in vitro* studies;

Project engagement:

- **FFG Bridge 1 855671 (project leader)** “Verbesserung der Aktivität, Spezifität und Stabilität von Antitumor Peptiden gegen humanes malignes Melanom“ (2016-2019) (484.696 €)
- **FWF project P24608-B23 (project leader)** “Human peptide derivatives against cancer with poor prognosis”. (2012-2016) Postdoctoral student (327.295 €)
- **FWF project P20760-B11 (project leader)** “Host defense peptides as novel agents against cancer”. (2008-2012) Supervision of PhD student and CTA (239.305 €)
- **NAWI Graz Infrastrukturförderung 2013 (53.672 €)**
- **NAWI Graz Forschungszuschuss 2013 (25.000 €)**
- Sonnleitner Stiftung “Antitumor” STI0099 (principal investigator) (15.775 €)
- Forschung macht Schule- Innovationspraktikum (FFG) 2008 and 2010 (project leader)
- European RTD project “ANEPID” (Antimicrobial endotoxin neutralizing peptides to combat infectious diseases) (QLK2-CT-2002-01001) (co-investigator)
- European MC-RTN “BIOCONTROL” EUP0120 (co-investigator)

Cooperation partners: Beate Rinner, ZMF Graz, Austria; Rainer Hoffmann-Wellenhof und Helmut Schaidler, Dermatology, LKH Graz, Austria; Bernadette Liegl-Atzwanger and Martin Asslaber, Pathology, LKH Graz, Austria; Günther Daum and Albin Hermetter, TU Graz, Austria; Suzana Strauss, Vancouver, Kanada; Ruthen Lewis und McElhaney, Edmonton, Canada; Roman Jerala and Mateja Zorko, University Ljubljana, Slovenia; Jörg Andrä, Research Center Borstel, Germany; Michaela Wenzel, Ruhr University Bochum, Germany, Julia Elisabeth Bandow, Ruhr University Bochum, Germany.

Invited oral presentations at International Meetings: 12

Presentations at international meetings: 38

Publications to date: 47 (23 in peer reviewed journals, 7 as corresponding, 5 as first author, rest coauthor or published abstracts, proceedings, book contributions).

Patents: 2

Patent WO 2008/006125 for “novel antimicrobial and antiseptic compounds” (amongst inventors).

Patent USA US 14/760,445; Europe EP 14700349.5; PCT/EP2014/050330 “Antitumor Peptides” (Inventors: Zweytick D., Lohner K., Riedl S.).

Professional experience:

Biochemistry, cell and molecular biology:

Lipid analysis and metabolism studies, cultivation and subcellular fractionation of eukaryotic and prokaryotic cells, enzymatic (radioactive) assays, immunological methods, isolation of proteins and construction of antibodies and gene deletion strains, expression of fusion proteins in an eukaryotic system (yeast), in silicio sequence analysis. Assembly and performance of cell culture techniques (bacterial, yeast and human systems) and *in vitro* studies (neoplastic and non- neoplastic cells).

Biophysics:

Localization (lipid and protein) and metabolism studies using confocal laser scanning microscopy; study of peptide-lipid interactions by application of several biophysical techniques, as calorimetry, X-ray, fluorescence spectroscopy and microscopy (establishment); Experience in structure-activity-relationship studies of antimicrobial and antitumor peptides.

Conception of project proposals and management (leadership) of projects (2 FWF, 1 FFG).

Reviewer for BBA, BBREP, EJP, FCT and JBA.

Publications – Dagmar Zweytick

(Maternity leave 1999-2002)

FWF Projekte: P20760-B11 (2008-2012), P24608-B23 (2012-2016) [project database FWF](#)

[Dagmar Zweytick](#)

[ORCID ID 0000-0002-4766-7713](#)

FFG Projekt: Bridge 1 855671 (2016-2019)

24 Peer reviewed publications (*7 corresponding, ¹5 first author)

16 in research area antitumor/antimicrobial

8 in other research areas

19 published abstracts, 2 proceedings paper

12 invited talks

2 patents

3 (granted) project-proposals

49 (*7)	Wodlej C., Riedl S.*, Rinner B., Leber R., Drechsler C., Voelker DR., Choi J-Y., Lohner K. and <u>Zweytick D.*</u> (*corresponding authors) <u>Interaction of two Antitumor Peptides with Membrane Lipids – Influence of Phosphatidylserine and Cholesterol on Specificity for Melanoma Cells</u> <i>PLoS One</i> (2019) Jan 25; 14(1):e0211187. doi: 10.1371/journal.pone.0211187 ; eCollection 2019.
48	Riedl S.*, Rinner B., Schaidler H., Liegl-Atzwanger B., Wodlej C., Grissenberger S., Preishuber-Pflugl J., Lohner K. and <u>Zweytick D.</u> (*corresponding author) (published abstract) Fighting melanoma - human lactoferricin derived peptides kill cancer cells by inducing severe stress and apoptosis. <i>J Pept Sci</i> 24, Suppl.2 (2018) p140-141; Meeting abstract P168
47	Riedl S.*, Rinner B., Schaidler H., Liegl-Atzwanger B., Wodlej C., Lohner K. and <u>Zweytick D.</u> (*corresponding author) (published abstract) Human lactoferricin derived peptides trigger apoptosis in malignant melanoma in vitro and in vivo <i>Eur Biophys J with Biophys Lett</i> 46, Suppl.1 (2017) p390; Meeting abstract P-1047
46	Rinner B., Gandolfi G., Meditz K., Frisch MT., Wagner K., Ciarrocchi A., Torricelli F., Koivuniemi, Niklander RJ., Liegl-Atzwanger B., Lohberger B., Heitzer E., Ghaffari-Tabrizi-Wizsy N., <u>Zweytick D.</u> , and Zalaudek I. MUG-Mel2, a novel highly pigmented and well characterized NRAS mutated human melanoma cell line <i>Sci Rep.</i> (2017) May 18;7(1):2098. doi: 10.1038/s41598-017-02197-y.
45 (*6)	Riedl S., Rinner B.*, Schaidler H., Liegl-Atzwanger B., Meditz K., Preishuber-Pflügl J., Grissenberger S., Lohner K. and <u>Zweytick D.*</u> (*corresponding author) <u>In vitro and in vivo cytotoxic activity of human Lactoferricin derived antitumor peptide R-DIM-</u>

	<p><u>P-LF11-334 on human malignant melanoma</u></p> <p><i>Oncotarget</i> 8(42) (2017) 71817-71832 doi: 10.18632/oncotarget</p>
44 (5*)	<p>Riedl S., Leber R., Rinner B., Schaidler H., Lohner K. and <u>Zweytick D.*</u> (*corresponding author)</p> <p><u>Human lactoferricin derived di-peptides deploying loop structures induce apoptosis specifically in cancer cells through targeting membranous phosphatidylserine</u></p> <p><i>Biochim. Biophys. Acta</i> 1848 (2015) 2918-2931 doi: 10.1016/j.bbamem.2015.07.018</p>
43	<p>Kolb D., Pritz E., Steinecker-Frohnwieser B., Lohberger B., Deutsch A., Kroneis T., El-Heliebi A., Dohr G., Meditz K., Wagner K., Koefeler H., Leitinger G., Leithner A., Liegl-Atzwanger B., <u>Zweytick D.</u>, Rinner B.</p> <p>Extended ultrastructural characterization of chordoma cells: the link to new therapeutic options</p> <p><i>PLoS One</i> 9(12) (2014); e114251. doi: 10.1371/journal.pone.0114251. eCollection 2014</p>
42	<p>Riedl S., Rinner B., Schaidler H., Asslaber M., Lohner K. and <u>Zweytick D.*</u> (*corresponding author) (published abstract)</p> <p>Antitumor peptides derived of human Lactoferricin as cancer therapy targeting the membrane lipid phosphatidylserine exposed by malignant melanoma and glioblastoma</p> <p><i>Int J Mol Med</i> 34, Suppl.1 (2014) p48; ISSN: 1107-3756</p>
41 (4*)	<p>Riedl S., Rinner B., Schaidler H., Lohner K. and <u>Zweytick D.*</u> (*corresponding author)</p> <p><u>Killing of melanoma cells and their metastases by human lactoferricin derivatives requires interaction with the cancer marker phosphatidylserine</u></p> <p><i>Biometals</i> 27(5) (2014) 981-997 doi: 10.1007/s10534-014-9749-0</p>
40	<p>Riedl S., Rinner B., Schaidler H., Lohner K. and <u>Zweytick D.*</u> (*corresponding author) (published abstract)</p> <p>Interaction of an antitumor peptide with lipids of the cancer plasma membrane - formation of membrane domains and influence of cholesterol</p> <p><i>Biophys. J.</i> 106 (2), Suppl. 1 (2014) 88a; ISSN: 0006-3495</p>
39	<p>Riedl S., Rinner B., Schaidler H., Asslaber M., Lohner K. and <u>Zweytick D.*</u>(*corresponding author) (published abstract)</p> <p>Human Lactoferricin Derivatives as New Targeted Weapons in Cancer Therapy</p> <p><i>Biophys. J.</i> 106(2), Suppl. 1 (2014) 87a; ISSN: 0006-3495</p>
38	<p>Wenzel M., Chiriac A.J., Otto A., <u>Zweytick D.</u>, Maye C., Schumacher C., Gustg R., Albada H.B., Penkova M., Krämer U., Erdmann R., Metzler-Nolte N., Straus S.K., Bremer E., Becher D., Brötz-Oesterhelt H., Sahl H.G., Bandow J.E.</p> <p>Small cationic antimicrobial peptides delocalize peripheral membrane proteins</p> <p><i>Proc Natl Acad Sci U S A.</i> 2014 Apr 8;111(14):E1409-18. doi: 10.1073/pnas.1319900111. Epub 2014 Mar 24</p>
37 (3*)	<p><u>Zweytick D.*</u>, Japelj B., Mileykovskaya E., Zorko M., Dowhan W., Blondelle S.E., Riedl S., Jerala R., Lohner K. (*corresponding author)</p>

	<p><u>N-acylated Peptides Derived from Human Lactoferricin perturb Organization of Cardiolipin and Phosphatidylethanolamine in Cell Membranes and induce Defects in <i>Escherichia coli</i> Cell Division</u></p> <p><i>PLoS One</i> 9(2) (2014); e90228. doi: 10.1371/journal.pone.0090228. eCollection 2014</p>
36	<p><u>PATENT PCT Antitumor Peptides</u></p> <p><u>Patent Antitumor Peptides PCT/EP2014/050330;</u></p> <p>Inventors: <u>Zweytick D.</u>, Lohner K., Riedl S.</p> <p>Europe: EP application number: 14700349.5 “Antitumor Peptides”; EP2943215 B1; published: November 23 2016</p> <p>USA: U.S. Patent Application No. 14/760,445 entitled “Peptides for the Treatment of Cancer”; US9492497 B2;</p>
35	<p>Pabst G., <u>Zweytick D.</u>, Prassl R., Lohner K.</p> <p>Use of X-ray scattering to aid the design and delivery of membrane-active drugs</p> <p><i>Eur Biophys J. with Biophysics Letters</i> 41(10) (2012) 915-929; doi: 10.1007/s00249-012-0821-9.</p>
34	<p><u>PATENT Antimicrobial peptides</u></p> <p>Patent Number: PCT/AT2007/000345</p> <p>Patent Assignee: Österreichische Akademie der Wissenschaften</p> <p>Inventor(s): Blondelle, Sylvie E., Jerala, Roman, Pristovsek, Primož, Andreja Majerle, Mateja Zorko, Bostjan Japelj, Klaus Brandenburg, Jörg Andrä, Massimo Porro, Ignacio Moriyón Uría, José Leiva León, Guillermo Martinez De Tejada De Garaizabal, <u>Dagmar Zweytick</u>, Günter Deutsch, Karl Lohner</p> <p>Official Gazette of the United States Patent and Trademark Office Patents; published: JUN 14 2011</p>
33	<p>Spanova M., <u>Zweytick D.</u>, Lohner K., Klug L., Leitner E., Hermetter A. and Daum G.</p> <p>Influence of squalene on lipid particle/droplet and membrane organization in the yeast <i>Saccharomyces cerevisiae</i></p> <p><i>Biochim. Biophys. Acta</i> 1821(4) (2012) 647-53; doi: 10.1016/j.bbaliip.2012.01.015.</p>
<u>32 (2*)</u>	<p>Riedl S., Rinner B., Asslaber M., Schaidler H., Walzer S., Novak A., Lohner K. and <u>Zweytick D.*</u></p> <p>(*corresponding author)</p> <p><u>In search of a novel target – Phosphatidylserine exposed by non-apoptotic tumor cells and metastases of malignancies with poor treatment efficacy</u></p> <p><i>Biochim. Biophys. Acta</i> 1808 (2011) 2638-2645 doi: 10.1016/j.bbamem.2011.07.026.</p>
<u>31 (5¹)</u>	<p><u>Zweytick D.¹</u>, Deutsch G., Andrä J., Blondelle S.E., Vollmer E., Jerala R., and Lohner K. (¹first author)</p> <p><u>Studies on lactoferricin derived E. coli membrane active peptides reveal differences in the mechanism of N-acylated versus non-acylated peptides</u></p> <p><i>J. Biol. Chem.</i> 24 (2011) 21266-21276 doi: 10.1074/jbc.M110.195412.</p>
30	<p><u>Zweytick D.*</u>, Riedl S., Rinner B., Asslaber M., Schaidler H., Walzer S., Novak A., Lohner K.</p> <p>(*corresponding author) (published abstract)</p> <p>In search of new targets - the membrane lipid phosphatidylserine - the underestimated Achilles' Heel of</p>

	cancer cells <i>Annals of Oncology</i> 22, Suppl.3 (2011) 43; ISSN: 0923-7534
29	Riedl S., Rinner B., Tumer S., Schaidler H., Lohner K. and <u>Zweytick D.*</u> (*corresponding author) (published abstract) Targeting the cancer cell membrane specifically with human lactoferricin derivatives <i>Annals of Oncology</i> 22, Suppl.3 (2011) 33; ISSN: 0923-7534
28	Riedl S., <u>Zweytick D.</u> and Lohner K. (review) <u>Membrane-active host defense peptides – challenges and perspectives for the development of novel anticancer drugs</u> <i>Chemistry and Physics of Lipids</i> 164 (2011) 766-81; doi:10.1016/j.chemphyslip.2011.09.004
27	Lohner K., Deutsch G., Sevcsik E., <u>Zweytick D.</u> , Andrä J., Shai Y. and Blondelle S.E. (published abstract) N-Acylation of Antimicrobial Peptides Causes Different Mode of Cell Membrane Damage <i>Biophys. J.</i> 98(3), Suppl. 1 (2010) 218a; ISSN: 0006-3495
26	Manavbasi Y., Gofman Y., Ben-Tal N., Willumeit R., <u>Zweytick D.</u> and Lohner K. (published abstract) Structural Aspects of the Interaction of NK-2 Derived Peptides with Cancer Cells <i>Biophys. J.</i> 98(3), Suppl. 1 (2010) 277a; ISSN: 0006-3495
25	Brandenburg K., Howe J., Sánchez-Gómez S., Garidel P., Roessle M., Andrä J., Jerala R., <u>Zweytick D.</u> , Lohner K., Rappolt M., Blondelle S.E., Martinez de Tejada G. Effective antimicrobial and anti-endotoxin activity of cationic peptides based on lactoferricin: A biophysical and microbiological study <i>Anti-infective Agents in Medicinal Chemistry</i> 9 (2010) 9-22
24	<u>Zweytick D.*</u> , Deutsch G., Tumer S., Zorko M., Jerala R., Blondelle S., Monreal D., Martinez de Tejada G. and Lohner K. (published abstract) (*corresponding author) Short membrane active (lipo)-peptides - interplay of domain formation, membrane curvature stress and cellular leakage <i>Biophys. J.</i> 96, Suppl. 1 (2009) 154a
23	Manavbasi Y., <u>Zweytick D.</u> , Willumeit R., and Lohner K. (published abstract) Phosphatidylserine selective peptides as novel anti-cancer agents <i>Biophys. J.</i> 96, Suppl. 1 (2009) 157a
22	Manavbasi Y., <u>Zweytick D.</u> , Willumeit R. and K. Lohner K. (published abstract) Peptides derived from NK-2 selective for phosphatidylserine as novel cancer agents <i>Journal of Peptide Science</i> 14(8), Suppl. S (2008) 168; ISSN: 1075-2617
21	Lohner K., Deutsch G., <u>Zweytick D.</u> , Martinez de Tejada G., Sanchez-Gomez S., Moriyon I., Blondelle S.E., Andrä J., Brandenburg K., Japelj B., Zorko M., and Jerala R. (published abstract) Design of short lipo(peptides) with antimicrobial and endotoxin neutralizing activity <i>Biophys. J.</i> Suppl. (2008) 94/152

20	Czabany T., Wagner A., <u>Zweytick D.</u> , Lohner K., Leitner E., Ingolic E. and Daum G. Structural and biochemical properties of lipid particles from the yeast <i>Saccharomyces cerevisiae</i> <i>J. Biol. Chem.</i> 283(25) (2008) 17065-74; doi: 10.1074/jbc.M800401200.
19 (1*)	<u>Zweytick D.*</u> , Tumer S., Blondelle S.E. and Lohner K. (*corresponding author) <u>Membrane curvature stress and antibacterial activity of lactoferricin derivatives</u> <i>Biochem. Biophys. Res. Comm.</i> 369 (2008) 395-400; doi: 10.1016/j.bbrc.2008.01.176.
18	Lewis R.N.A.H., <u>Zweytick D.</u> , Pabst G., Lohner K. and McElhaney R.N. Calorimetric, X-Ray Diffraction and Spectroscopic Studies of the Thermotropic Phase Behavior and Organization of Tetramyristoyl Cardiolipin Membranes <i>Biophys J.</i> 92 (2007) 3166-3177; PMID: 17293402
17	<u>Zweytick D.</u> , and Lohner K. (published abstract) Phase behaviour and bilayer structure of tetramyristoyl cardiolipin <i>Biophys. J. Suppl. S</i> (2007) 580a; ISSN: 0006-3495.
16	Grillitsch K., Czabany T., Wagner A., <u>Zweytick D.</u> , Ingolic E., Daum G. (published abstract) Structural analysis of lipid particles from the yeast <i>Saccharomyces cerevisiae</i> <i>Chemistry and Physics of Lipids</i> 149 Suppl. S (2007) S27; ISSN: 0009-3084
15	Czabany T., Wagner A., <u>Zweytick D.</u> , Ingolic E., Spanova M., Hapala I., Daum G. (published abstract) Lipid particle variants from the yeast <i>Saccharomyces cerevisiae</i> <i>FEBS J.</i> 274, Suppl. 1 (2007) 117; ISSN: 1742-464X
14 (4¹)	<u>Zweytick D.</u> ¹ , Pabst G., Abuja P.M., Jilek A., Blondelle S.E., Andrä J., Jerala J., Monreal D., Martinez de Tejada G. and Lohner K. (¹ first author) <u>Influence of N-acylation of a peptide derived from human lactoferricin on membrane selectivity</u> <i>Biochim. Biophys. Acta</i> 1758 (2006) 1426-1435; doi: 10.1016/j.bbamem. 2006.02.032.
13	Deutsch G., <u>Zweytick D.</u> , Blondelle S.E., Monreal D., Leiva J. and Lohner K. (published abstract) Modulation of membrane perturbation by N-acylated peptides derived from a human lactoferrin fragment <i>Biophys. J.</i> 90 (2006) 1039/B162
12	Sanchez-Gomez S., de Tejada GM., Leiva-Leon J., Moriyon I., <u>Zweytick D.</u> , Lohner K., Blondelle SE. (proceedings) Comparing antimicrobial and membrane permeabilizing activity of peptides derived from human cationic proteins Understanding biology using peptides (2006) Blondelle SE. (Ed.), Springer New York, 2006; doi: 10.1007/978-0-387-26575-9_104
11	Sánchez-Gómez S., Martínez de Tejada G., Leiva-Leon J., Moriyón, I., <u>Zweytick D.</u> , Lohner K. and Blondelle S.E. (book contribution). Comparing antimicrobial and membrane permeabilizing activity of peptides derived from human cationic proteins

	in: "Understanding Biology Using Peptides" (Ed. S.E. Blondelle), American Peptide Society, La Costa, CA, USA (2006) pp. 255-257
10	Müllner H., <u>Zweytick D.</u> , Leber R., Turnowsky F. and Daum G. Targeting of proteins involved in sterol biosynthesis to lipid particles of the yeast <i>Saccharomyces cerevisiae</i> <i>Biochim. Biophys. Acta</i> 1663 (1-2) (2004) 9-13; PMID: 15157604
9	Blondelle S.E., Jerala R., Lamata M., Moriyon I., Brandenburg K, Andrae J., Porro, M., Deutsch G., <u>Zweytick D.</u> , Lohner K. (published abstract) Effect of hydrophobic chains on peptide antimicrobial and endotoxin-neutralizing activities <i>J. Peptide Science</i> 10 (2004) 104; ISSN: 1075-2617
8	Blondelle SE., Andra J., Howe J., de Tejada GM., Jerala R., Porro M., <u>Zweytick D.</u> , Lohner K. (proceedings) Effect of hydrophobic chains on peptide antimicrobial and endotoxin-neutralizing activities <i>Peptides</i> 2004, Proceedings: Bridges between disciplines (2005) p81-82; ISBN:965-90833-0-0
7	Deutsch G., <u>Zweytick D.</u> , Lohner K. (published abstract) Interaction of acylated antimicrobial peptides with artificial membrane systems <i>J. Peptide Science</i> 10 (2004) 176; ISSN: 1075-2617
6 (3 ¹)	<u>Zweytick D.</u> ¹ , Leitner E., Kohlwein S.D., Yu C., Rothblatt J. and Daum G. (¹ first author) Contribution of Are1p and Are2p to steryl ester synthesis in the yeast <i>Saccharomyces cerevisiae</i> <i>Eur. J. Biochem.</i> 267 (2000) 1075-1082; PMID: 10672016
5 (2 ¹)	<u>Zweytick D.</u> , Hrastnik C., Kohlwein S.D. and Daum G. Biochemical characterization and subcellular localization of the sterol C-24(28) reductase, Erg4p, from the yeast <i>Saccharomyces cerevisiae</i> <i>FEBS Lett.</i> 470 (2000) 83-87; doi:10.1016/S0014-5793(00)01290-4.
4 (1 ¹)	<u>Zweytick D.</u> ¹ , Athenstaedt K. and Daum G. (review) (¹ first author) Intracellular lipid particles of eukaryotic cells <i>Biochim. Biophys. Acta</i> 1469 (2000) 101-120; PMID: 10998572
3	Athenstaedt K., <u>Zweytick D.</u> , Jandrositz A., Kohlwein S.D. and Daum, G. Identification and characterization of major lipid particle proteins of the yeast <i>Saccharomyces cerevisiae</i> <i>J. Bacteriol.</i> 181 (1999) 1458-1463; PMID: 10515935
2	<u>Zweytick D.</u> , Athenstaedt K., Kohlwein SD., Perktold A., Zellnig G., Daum G. (published abstract) The role of lipid particles in yeast <i>FASEB J.</i> 11(9), Suppl. S (1997) A929; ISSN: 0892-6638
1	Achleitner G., <u>Zweytick D.</u> , Trotter P. J. Voelker D. R. and Daum G. Synthesis and intracellular transport of aminoglycerophospholipids in permeabilized cells of the yeast, <i>Saccharomyces cerevisiae</i>

	<i>J. Biol. Chem.</i> 270 (50) (1995) 29836-42; PMID: 8530379
	Oral presentations (invited, presenting author)
12	<u>Zweytick D.</u> Human lactoferricin derived peptides induce apoptosis specifically in cancer cells through targeting membranous phosphatidylserine <i>61st BPS Annual Meeting, February, 9th-15th 2017, New Orleans, Louisiana, USA</i>
11	<u>Zweytick D.</u> Human lactoferricin derived peptides induce apoptosis specifically in cancer cells through targeting membranous phosphatidylserine <i>Second "Young Investigators in Lipid Science" Meeting, May 10-11th, 2016 in Duesseldorf, Deutschland</i>
10	<u>Zweytick D.</u> Antitumor peptides derived of human Lactoferricin as cancer therapy targeting the membrane lipid phosphatidylserine exposed by malignant melanoma and glioblastoma <i>19th World Congress on Advances in Oncology, 9.10.2014-11.10.2014, Athens, Greece</i>
9	<u>Zweytick D.</u> Specific interaction of human Lactoferricin derivatives with negatively charged lipids exposed by bacterial and cancer cells- a lipid as target for therapy <i>XIth International Conference on Lactoferrin: Structure, Functions and Applications, 7.10.-11.10.2013, Rome, Italy</i>
8	<u>Zweytick D.</u> Specific interaction of host defense peptide derivatives with negatively charged lipids exposed by bacteria and cancer cells - a lipid as target for therapy <i>ACIB Workshop, Biotechnology of cellular membranes, 7.12.2012, Graz, Austria</i>
7	<u>Zweytick D.</u> In Search of new Targets for Cancer Therapies-the Membrane Lipid Phosphatidylserine <i>Cell culture day, 8.11.2012, Graz, Austria</i>
6	Riedl S., Tumer S., Rinner B., Novak A., Lohner K. and <u>Zweytick D.</u> A new Strategy for the Design of Anitumor Drugs-from Theory to Therapy <i>Cell culture day, 23.6.2010, Graz, Austria</i>
5	<u>Zweytick D.</u> Application of Differential Scanning Calorimetry for Studies on Biomembranes, their Models and Drug Development <i>Entdecke die Welt der molekularen Interaktionsanalytik, Seminar, GE Healthcare Life Sciences, 13.7.2010, Graz, Austria</i>
4	<u>Zweytick D.</u> , Riedl S., Tumer S., Rinner B., Strohmaier H., and Lohner K. Phosphatidylserine exposed by cancer cells as new target for peptide drugs

	7 th Euro Fed Lipid Congress. <i>Lipids, fats and oils from knowledge to application</i> , 18.-21.10.2009, Graz, Austria
3	<u>Zweytick D.</u> , Riedl S., Tumer S., Rinner B., Novak A., Lohner K. Small peptides – huge effects on cancer cells NAWI Workshop, 26.6.2009, Graz, Austria
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2	<u>PATENT PCT Antitumor Peptides</u> <u>Patent Antitumor Peptides PCT/EP2014/050330;</u> Inventors: <u>Zweytick D.</u> , Lohner K., Riedl S. <u>Europe</u> : EP application number: 14700349.5 “Antitumor Peptides”; EP2943215 B1; published: November 23 2016 <u>USA</u> : U.S. Patent Application No. 14/760,445 entitled “Peptides for the Treatment of Cancer”; US9492497 B2;
1	<u>PATENT Antimicrobial peptides</u> Patent Number: PCT/AT2007/000345 Patent Assignee: Österreichische Akademie der Wissenschaften Inventor(s): Blondelle, Sylvie E., Jerala, Roman, Pristovsek, Primož, Andreja Majerle, Mateja Zorko, Bostjan Japelj, Klaus Brandenburg, Jörg Andrä, Massimo Porro, Ignacio Moriyón Uría, José Leiva León, Guillermo Martinez De Tejada De Garaizabal, <u>Dagmar Zweytick</u> , Günter Deutsch, Karl Lohner Official Gazette of the United States Patent and Trademark Office Patents; published: JUN 14 2011

	3 Project Proposals granted, project leader
3	FFG Bridge 1 855671 “Verbesserung der Aktivität, Spezifität und Stabilität von Antitumor Peptiden gegen humanes malignes Melanom“ (2016-2019) (484.696 €)
2	FWF project P24608-B23 “Human peptide derivatives against cancer with poor prognosis”. (2012-2016) Postdoctoral student Sabrina Riedl (327.295 €)

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