

**Ilka Wittig**  
**Publications 2006-2018**

(last updated April 2018)

- Fuhrmann DC, **Wittig I**, Dröse S, Schmid T, Dehne N, Brüne B (2018) Degradation of the mitochondrial complex I assembly factor TMEM126B under chronic hypoxia. **Cell Mol Life Sci**:published online 20 February 2018. <http://dx.doi.org/10.1007/s00018-018-2779-y>
- Lampe S, Kunze M, Scholz A, Brauss TF, Winslow S, Simm S, Keller M, Heidler J, **Wittig I**, Brune B, Schmid T (2018) Identification of the TXNIP IRES and characterization of the impact of regulatory IRES trans-acting factors. **BBA - Gene Regulatory Mechanisms**. <http://dx.doi.org/10.1016/j.bbagr.2018.01.010>
- Wüst S, Dröse S, Heidler J, **Wittig I**, Klockner I, Franko A, Bonke E, Günther S, Gärtner U, Boettger T, Braun T (2018) Metabolic maturation during muscle stem cell differentiation is achieved by *miR-1/133a*-mediated inhibition of the *Dlk1-Dio3* mega gene cluster. **Cell Metab** 27:1-14. <http://dx.doi.org/10.1016/j.cmet.2018.02.022>
- Angerer H, Schonborn S, Gorka J, Bahr U, Karas M, **Wittig I**, Heidler J, Hoffmann J, Morgner N, Zickermann V (2017) Acyl modification and binding of mitochondrial ACP to multiprotein complexes. **Biochim Biophys Acta** 1864:1913-1920. <http://dx.doi.org/10.1016/j.bbamcr.2017.08.006>
- Botti V, McNicoll F, Steiner MC, Richter FM, Solovyeva A, Wegener M, Schwich OD, Poser I, Zarnack K, **Wittig I**, Neugebauer KM, Müller-McNicoll M (2017) Cellular differentiation state modulates the mRNA export activity of SR proteins. **J Cell Biol** 216:1993-2009. <http://dx.doi.org/10.1083/jcb.201610051>
- Eydt K, Davies KM, Behrendt C, **Wittig I**, Reichert AS (2017) Cristae architecture is determined by an interplay of the MICOS complex and the F1FO ATP synthase via Mic27 and Mic10. **Microb Cell** 4:259-272. <http://dx.doi.org/10.15698/mic2017.08.585>
- Garlich J, Strecker V, **Wittig I**, Stuart RA (2017) Mutational analysis of the QRRQ motif in the yeast Hig1 type 2 protein Rcf1 reveals a regulatory role for the cytochrome c oxidase complex. **J Biol Chem** 292:5216-5226. <http://dx.doi.org/10.1074/jbc.M116.758045>
- Golghalyani V, Neupärtl M, **Wittig I**, Bahr U, Karas M (2017) ArgC-like digestion: complementary or alternative to tryptic digestion? **J Proteome Res** 16:978–987. <http://dx.doi.org/10.1021/acs.jproteome.6b00921>
- Hardt S, Heidler J, Albuquerque B, Valek L, Altmann C, Wilken-Schmitz A, Schafer MKE, **Wittig I**, Tegeder I (2017) Loss of synaptic zinc transport in progranulin deficient mice may contribute to progranulin-associated psychopathology and chronic pain. **BBA Mol Basis Dis** 1863:2727-2745. <http://dx.doi.org/10.1016/j.bbadis.2017.07.014>
- Kahlhöfer F, Kmita K, **Wittig I**, Zwicker K, Zickermann V (2017) Accessory subunit NUYM (NDUFS4) is required for stability of the electron input module and activity of mitochondrial complex I. **Biochim Biophys Acta-Bioenerg** 1858:175–181. <http://dx.doi.org/10.1016/j.bbabi.2016.11.010>
- Kallenborn-Gerhardt W, Möser C, Lorenz J, Steger M, Heidler J, Scheving R, Petersen J, Kennel L, Flauaus C, Lu R, Edinger A, Tegeder I, Geisslinger G, Heide H, **Wittig I**, Schmidtko A (2017) Rab7 - a novel redox target that modulates inflammatory pain processing. **Pain** 158:1354-1365. <http://dx.doi.org/10.1097/j.pain.0000000000000920>
- Leisegang MS, Fork C, Josipovic I, Richter F, Preussner J, Hu J, Miller MJ, Epah JN, Hofmann P, Günther S, Moll F, Valasarajan C, Heidler J, Ponomareva Y, Freiman TM, Maegdefessel L, Plate KH, Mittelbronn M, Uchida S, Künne C, Stellos K, Schermuly RT, Weissmann N, Devraj K, **Wittig I**, Boon RA, Dimmeler S, Pullamsetti SS, Looso M, Miller FJ, Brandes RP (2017) Long noncoding RNA

MANTIS facilitates endothelial angiogenic function. *Circulation* 136:65-79.  
<http://dx.doi.org/10.1161/circulationaha.116.026991>

Malik RA, Zippel N, Fromel T, Heidler J, Zukunft S, Walzog B, Ansari N, Pampaloni F, Wingert S, Rieger MA, **Wittig I**, Fisslthaler B, Fleming I (2017) AMP-Activated Protein Kinase alpha 2 in Neutrophils Regulates Vascular Repair via Hypoxia-Inducible Factor-1 alpha and a Network of Proteins Affecting Metabolism and Apoptosis. *Circulation Research* 120:99-109.  
<http://dx.doi.org/10.1161/circresaha.116.309937>

Mercken EM, Capri M, Carboneau BA, Conte M, Heidler J, Santoro A, Martin-Montalvo A, Gonzalez-Freire M, Khraiweh H, Gonzalez-Reyes JA, Moaddel R, Zhang Y, Becker KG, Villalba JM, Mattison JA, **Wittig I**, Franceschi C, de Cabo R (2017) Conserved and species-specific molecular denominators in mammalian skeletal muscle aging. *NPJ Aging Mech Dis* 3:8.  
<http://dx.doi.org/10.1038/s41514-017-0009-8>

Randriamboavonjy V, Kyselova A, Elgheznawy A, Zukunft S, **Wittig I**, Fleming I (2017) Calpain 1 cleaves and inactivates prostacyclin synthase in mesenteric arteries from diabetic mice. *Basic Res Cardiol* 112:13. <http://dx.doi.org/10.1007/s00395-016-0596-8>

Rezende F, Prior KK, Lowe O, **Wittig I**, Strecker V, Moll F, Helfinger V, Schnutgene F, Kurrle N, Wemp F, Walter M, Zukunft S, Luck B, Fleming I, Weissmann N, Brandes RP, Schroder K (2017) Cytochrome P450 enzymes but not NADPH oxidases are the source of the NADPH-dependent lucigenin chemiluminescence in membrane assays. *Free Radic Biol Med* 102:57-66.  
<http://dx.doi.org/10.1016/j.freeradbiomed.2016.11.019>

Rohde K, Kleinesudeik L, Roesler S, Löwe O, Heidler J, Schröder K, **Wittig I**, Dröse S, Fulda S (2017) A Bak-dependent mitochondrial amplification step contributes to Smac mimetic/glucocorticoid-induced necroptosis. *Cell Death Differ* 24:83-97. <http://dx.doi.org/10.1038/cdd.2016.102>

Roos J, Peters M, Maucher IV, Kuhn B, Fettel J, Hellmuth N, Brat C, Sommer B, Urbschat A, Piesche M, Vogel A, Proschak E, Blocher R, Buscato E, Hafner AK, Matrone C, Werz O, Heidler J, **Wittig I**, Angioni C, Geisslinger G, Parnham MJ, Zacharowski K, Steinhilber D, Maier TJ (2017) Drug-mediated intracellular donation of nitric oxide potentially inhibits 5-lipoxygenase: a possible key to future anti-leukotriene therapy. *Antioxid Redox Signal*:published online 8 September 2017.  
<http://dx.doi.org/10.1089/ars.2017.7155>

Schimo S, **Wittig I**, Pos KM, Ludwig B (2017) Cytochrome c oxidase biogenesis and metallochaperone interactions: Steps in the assembly pathway of a bacterial complex. *PLOS ONE* 12:e0170037. <http://dx.doi.org/10.1371/journal.pone.0170037>

Senkler J, Senkler M, Eubel H, Hildebrandt T, Lengwenus C, Schertl P, Schwarzlander M, Wagner S, **Wittig I**, Braun HP (2017) The mitochondrial complexome of Arabidopsis thaliana. *Plant J* 89:1079-1092. <http://dx.doi.org/10.1111/tpj.13448>

Singhal RK, Kruse C, Heidler J, Strecker V, Zwicker K, Düsterwald L, Westermann B, Herrmann JM, **Wittig I**, Rapaport D (2017) Coi1 is a novel assembly factor of the yeast complex III-complex IV supercomplex. *Mol Biol Cell* 28:2609-2622 <http://dx.doi.org/10.1091/mbc.E17-02-0093>

Szibor M, Dhandapani PK, Dufour E, Holmstrom KM, Zhuang Y, Salwig I, **Wittig I**, Heidler J, Gizatullina Z, Gainutdinov T, Fuchs H, Gailus-Durner V, de Angelis MH, Nandania J, Velagapudi V, Wietelmann A, Rustin P, Gellerich FN, Jacobs HT, Braun T, German Mouse Clinic C (2017) Broad AOX expression in a genetically tractable mouse model does not disturb normal physiology. *Dis Model Mech* 10:163-171. <http://dx.doi.org/10.1242/dmm.027839>

Thomik T, **Wittig I**, Choe JY, Boles E, Oreb M (2017) An artificial transport metabolon facilitates improved substrate utilization in yeast. *Nat Chem Biol* 13:1158–1163  
<http://dx.doi.org/10.1038/nchembio.2457>

Alston CL, Compton AG, Formosa LE, Strecker V, Olahova M, Haack TB, Smet J, Stouffs K, Diakumis P, Ciara E, Cassiman D, Romain N, Yarham JW, He LP, De Paepe B, Vanlander AV, Seneca S, Feichtinger RG, Poski R, Rokicki D, Pronicka E, Haller RG, Van Hove JLK, Bahlo M, Mayr JA, Van Coster R, Prokisch H, **Wittig I**, Ryan MT, Thorburn DR, Taylor RW (2016) Biallelic mutations in TMEM126B cause severe complex I deficiency with a variable clinical phenotype. *Am J Hum Genet* 99:217-227. <http://dx.doi.org/10.1016/j.ajhg.2016.05.021>

Altmann C, Hardt S, Fischer C, Heidler J, Lim HY, Haussler A, Albuquerque B, Zimmer B, Moser C, Behrends C, Koentgen F, **Wittig I**, Schmidt MHH, Clement AM, Deller T, Tegeder I (2016) Progranulin overexpression in sensory neurons attenuates neuropathic pain in mice: Role of autophagy. *Neurobiol Dis* 96:294-311. <http://dx.doi.org/10.1016/j.nbd.2016.09.010>

Altmann C, Vasic V, Hardt S, Heidler J, Haussler A, **Wittig I**, Schmidt MHH, Tegeder I (2016) Progranulin promotes peripheral nerve regeneration and reinnervation: role of notch signaling. *Mol Neurodegener* 11:22. <http://dx.doi.org/10.1186/s13024-016-0132-1>

Anand R, Strecker V, Urbach J, **Wittig I**, Reichert AS (2016) Mic13 is essential for formation of crista junctions in mammalian cells. *PLOS ONE* 11:19. <http://dx.doi.org/10.1371/journal.pone.0160258>

Aretz I, Hardt C, **Wittig I**, Meierhofer D (2016) An impaired respiratory electron chain triggers down-regulation of the energy metabolism and de-ubiquitination of solute carrier amino acid transporters. *Mol Cell Proteomics* 15:1526-1538. <http://dx.doi.org/10.1074/mcp.M115.053181>

Birkenmeier K, Drose S, **Wittig I**, Winkelmann R, Kafer V, Doring C, Hartmann S, Wenz T, Reichert AS, Brandt U, Hansmann ML (2016) Hodgkin and Reed-Sternberg cells of classical Hodgkin lymphoma are highly dependent on oxidative phosphorylation. *Int J Cancer* 138:2231-2246. <http://dx.doi.org/10.1002/ijc.29934>

Kemmerer M, **Wittig I**, Richter F, Brune B, Namgaladze D (2016) AMPK activates LXR alpha and ABCA1 expression in human macrophages. *Int J Biochem Cell Biol* 78:1-9. <http://dx.doi.org/10.1016/j.biocel.2016.06.014>

Kunze MM, Benz F, Brauss TF, Lampe S, Weigand JE, Braun J, Richter FM, **Wittig I**, Brune B, Schmid T (2016) sST2 translation is regulated by FGF2 via an hnRNP A1-mediated IRES-dependent mechanism. *Biochim Biophys Acta-Gene Regul Mech* 1859:848-859. <http://dx.doi.org/10.1016/j.bbagr.2016.05.005>

Longen S, Richter F, Kohler Y, **Wittig I**, Beck KF, Pfeilschifter J (2016) Quantitative persulfide site identification (qPerS-SID) reveals protein targets of H2S releasing donors in mammalian cells. *Sci Rep* 6:12. <http://dx.doi.org/10.1038/srep29808>

Martínez-Limón A, Alriquet M, Lang W-H, Calloni G, **Wittig I**, Vabulas RM (2016) Recognition of enzymes lacking bound cofactor by protein quality control. *P Natl Acad Sci USA* 113:12156-12161. <http://dx.doi.org/10.1073/pnas.1611994113>

Mora J, Schlemmer A, **Wittig I**, Richter F, Putyrski M, Frank AC, Han YY, Jung M, Ernst A, Weigert A, Brune B (2016) Interleukin-38 is released from apoptotic cells to limit inflammatory macrophage responses. *J Mol Cell Biol* 8:426-438. <http://dx.doi.org/10.1093/jmcb/mjw006>

Prior KK, **Wittig I**, Leisegang MS, Groenendyk J, Weissmann N, Michalak M, Jansen-Durr P, Shah AM, Brandes RP (2016) The endoplasmic reticulum chaperone calnexin is a NADPH oxidase NOX4 interacting protein. *J Biol Chem* 291:7045-7059. <http://dx.doi.org/10.1074/jbc.M115.710772>

Stathopoulou K, **Wittig I**, Heidler J, Piasecki A, Richter F, Diering S, van der Velden J, Buck F, Donzelli S, Schroder E, Wijnker PJM, Voigt N, Dobrev D, Sadayappan S, Eschenhagen T, Carrier L, Eaton P, Cuello F (2016) S-glutathiolation impairs phosphoregulation and function of cardiac myosin-binding protein C in human heart failure. *FASEB J* 30:1849-1864. <http://dx.doi.org/10.1096/fj.201500048>

- Strecker V, Kadeer Z, Heidler J, Cruciat C-M, Angerer H, Giese H, Pfeiffer K, Stuart RA, **Wittig I** (2016) Supercomplex-associated Cox26 protein binds to cytochrome c oxidase. *Biochim Biophys Acta-Mol Cell Res* 1863:1643-1652. <http://dx.doi.org/10.1016/j.bbamcr.2016.04.012>
- Winter L, **Wittig I**, Peeva V, Eggers B, Heidler J, Chevessier F, Kley RA, Barkovits K, Strecker V, Berwanger C, Herrmann H, Marcus K, Kornblum C, Kunz WS, Schroder R, Clemen CS (2016) Mutant desmin substantially perturbs mitochondrial morphology, function and maintenance in skeletal muscle tissue. *Acta Neuropathol* 132:453-473. <http://dx.doi.org/10.1007/s00401-016-1592-7>
- Bleier L, **Wittig I**, Heide H, Steger M, Brandt U, Drose S (2015) Generator-specific targets of mitochondrial reactive oxygen species. *Free radical biology & medicine* 78:1-10. <http://dx.doi.org/10.1016/j.freeradbiomed.2014.10.511>
- Braczynski AK, Vlaho S, Muller K, **Wittig I**, Blank AE, Tews DS, Drott U, Kleinle S, Abicht A, Horvath R, Plate KH, Stenzel W, Goebel HH, Schulze A, Harter PN, Kieslich M, Mittelbronn M (2015) ATP synthase deficiency due to TMEM70 mutation leads to ultrastructural mitochondrial degeneration and is amenable to treatment. *Biomed Res Int*. <http://dx.doi.org/462592>  
10.1155/2015/462592
- Clemen CS, Marko M, Strucksberg KH, Behrens J, **Wittig I**, Gartner L, Winter L, Chevessier F, Matthias J, Turk M, Tangavelou K, Schutz J, Arhzaouy K, Klopffleisch K, Hanisch FG, Rottbauer W, Blumcke I, Just S, Eichinger L, Hofmann A, Schroder R (2015) VCP and PSMF1: Antagonistic regulators of proteasome activity. *Biochem Biophys Res Commun* 463:1210-1217. <http://dx.doi.org/10.1016/j.bbrc.2015.06.086>
- Elgheznawy A, Shi L, Hu J, **Wittig I**, Laban H, Pircher J, Mann A, Provost P, Randriamboavonjy V, Fleming I (2015) Dicer cleavage by calpain determines platelet microRNA levels and function in diabetes. *Circ Res* 117:157-165. <http://dx.doi.org/10.1161/circresaha.117.305784>
- Fuhrmann DC, Tausendschon M, **Wittig I**, Steger M, Ding MG, Schmid T, Dehne N, Brune B (2015) Inactivation of tristetraprolin in chronic hypoxia provokes the expression of cathepsin B. *Mol Cell Biol* 35:619-630.
- Giese H, Ackermann J, Heide H, Bleier L, Drose S, **Wittig I**, Brandt U, Koch I (2015) NOVA: a software to analyze complexome profiling data. *Bioinformatics (Oxford, England)* 31:440-441. <http://dx.doi.org/10.1093/bioinformatics/btu623>
- Angerer H, Radermacher M, Malkowska M, Steger M, Zwicker K, Heide H, **Wittig I**, Brandt U, Zickermann V (2014) The LYR protein subunit NB4M/NDUFA6 of mitochondrial complex I anchors an acyl carrier protein and is essential for catalytic activity. *P Natl Acad Sci USA* 111:5207-5212. <http://dx.doi.org/10.1073/pnas.1322438111>
- Babot M, Labarbuta P, Birch A, Kee S, Fuszard M, Botting CH, **Wittig I**, Heide H, Galkin A (2014) ND3, ND1 and 39kDa subunits are more exposed in the de-active form of bovine mitochondrial complex I. *Biochimica et biophysica acta* 1837:929-939. <http://dx.doi.org/10.1016/j.bbabi.2014.02.013>
- Becker L, Kling E, Schiller E, Zeh R, Schrewe A, Holter SM, Mossbrugger I, Calzada-Wack J, Strecker V, **Wittig I**, Dumitru I, Wenz T, Bender A, Aichler M, Janik D, Neff F, Walch A, Quintanilla-Fend L, Floss T, Bekeredjian R, Gailus-Durner V, Fuchs H, Wurst W, Meitinger T, Prokisch H, de Angelis MH, Klopstock T (2014) MTO1-deficient mouse model mirrors the human phenotype showing complex I defect and cardiomyopathy. *PLOS ONE* 9:e114918. <http://dx.doi.org/e114918>  
10.1371/journal.pone.0114918
- Dröse S, Brandt U, **Wittig I** (2014) Mitochondrial respiratory chain complexes as sources and targets of thiol-based redox-regulation. *BBA-Proteins Proteomics* 1844:1344-1354. <http://dx.doi.org/10.1016/j.bbapap.2014.02.006>

- Elgheznawy A, Shi L, **Wittig I**, Laban H, Pohl U, Mann A, Randriamboavonjy V, Fleming I (2014) Reduced microRNA levels contribute to platelet hyperactivity in diabetes: role of calpain. **Acta Physiol** 210:118-120.
- Giegerich AK, Kuchler L, Sha LK, Knape T, Heide H, **Wittig I**, Behrends C, Brune B, von Knethen A (2014) Autophagy-dependent PELI3 degradation inhibits proinflammatory IL1B expression. **Autophagy** 10:1937-1952. <http://dx.doi.org/10.4161/auto.32178>
- Haack TB, Gorza M, Danhauser K, Mayr JA, Haberberger B, Wieland T, Kremer L, Strecker V, Graf E, Memari Y, Ahting U, Kopajtich R, Wortmann SB, Rodenburg RJ, Kotzaeridou U, Hoffmann GF, Sperl W, **Wittig I**, Wilichowski E, Schottmann G, Schuelke M, Plecko B, Stephani U, Strom TM, Meitinger T, Prokisch H, Freisinger P (2014) Phenotypic spectrum of eleven patients and five novel MTFMT mutations identified by exome sequencing and candidate gene screening. **Mol Genet Metab** 111:342-352. <http://dx.doi.org/10.1016/j.ymgme.2013.12.010>
- Kratochvilova H, Hejzlarova K, Vrbacky M, Mracek T, Karbanova V, Tesarova M, Gombitova A, Cmarko D, **Wittig I**, Zeman J, Houstek J (2014) Mitochondrial membrane assembly of TMEM70 protein. **Mitochondrion** 15:1-9. <http://dx.doi.org/10.1016/j.mito.2014.02.010>
- Kuchler L, Giegerich AK, Sha LK, Knape T, Wong MSK, Schroder K, Brandes RP, Heide H, **Wittig I**, Brune B, von Knethen A (2014) SYNCRIP-Dependent Nox2 mRNA Destabilization Impairs ROS Formation in M2-Polarized Macrophages. **Antioxid Redox Signal** 21:2483-2497. <http://dx.doi.org/10.1089/ars.2013.5760>
- Chimi MA, Dröse S, **Wittig I**, Heide H, Steger M, Werner A, Hamann A, Osiewacz HD, Brandt U (2013) Age-related changes in the mitochondrial proteome of the fungus *Podospora anserina* analyzed by 2D-DIGE and LC-MS/MS. **J Proteomics** 91:358-374. <http://dx.doi.org/10.1016/j.jprot.2013.07.008>
- de Rezende FFRF, Lima AML, **Wittig I**, Heide HH, Niland SN, Brandt UB, Schroder KS, Eble JAE (2013) Redox regulation of alpha 7 beta 1 integrin by H2O2 in smooth muscle cells. **Int J Exp Pathol** 94:A11-A11.
- Eisel F, Boosen M, Beck M, Heide H, **Wittig I**, Beck KF, Pfeilschifter J (2013) Platelet-derived growth factor triggers PKA-mediated signalling by a redox-dependent mechanism in rat renal mesangial cells. **Biochem Pharmacol** 85:101-108. <http://dx.doi.org/10.1016/j.bcp.2012.10.017>
- Gispert S, Parganlija D, Klinkenberg M, Dröse S, **Wittig I**, Mittelbronn M, Grzmil P, Koob S, Hamann A, Walter M, Buchel F, Adler T, de Angelis MH, Busch DH, Zell A, Reichert AS, Brandt U, Osiewacz HD, Jendrach M, Auburger G (2013) Loss of mitochondrial peptidase *Clpp* leads to infertility, hearing loss plus growth retardation via accumulation of CLPX, mtDNA and inflammatory factors. **Hum Mol Genet** 22:4871-4887. <http://dx.doi.org/10.1093/hmg/ddt338>
- Haack TB, Rolinski B, Haberberger B, Zimmermann F, Schum J, Strecker V, Graf E, Ahting U, Hoppen T, **Wittig I**, Sperl W, Freisinger P, Mayr JA, Strom TM, Meitinger T, Prokisch H (2013) Homozygous missense mutation in BOLA3 causes multiple mitochondrial dysfunctions syndrome in two siblings. **J Inherit Metab Dis** 36:55-62. <http://dx.doi.org/10.1007/s10545-012-9489-7>
- Weber TA, Koob S, Heide H, **Wittig I**, Head B, van der Bliek A, Brandt U, Mittelbronn M, Reichert AS (2013) APOOL is a cardiolipin-binding constituent of the mitofilin/MINOS protein complex determining cristae morphology in mammalian mitochondria. **PLOS ONE** 8:e63683. <http://dx.doi.org/10.1371/journal.pone.0063683>
- Brauer A, Kurz A, Stockwell T, Baden-Tillson H, Heidler J, **Wittig I**, Kauferstein S, Mebs D, Stocklin R, Remm M (2012) The mitochondrial genome of the venomous cone snail *Conus consors*. **PLOS ONE** 7:e51528. <http://dx.doi.org/10.1371/journal.pone.0051528>

Buchner B, Gallenmuller C, Lautenschlager R, Kuhn K, **Wittig I**, Schols L, Rapaport D, Seelow D, Freisinger P, Prokisch H, Sperl W, Wenz T, Behl C, Deschauer M, Kornblum C, Schneiderat P, Abicht A, Schuelke M, Meitinger T, Klopstock T, Mito NETC (2012) The German Network for Mitochondrial Disorders (mitoNET). *Med Genet-Berlin* 24:193-199. <http://dx.doi.org/10.1007/s11825-012-0338-8>

Davies KM, Anselmi C, **Wittig I**, Faraldo-Gómez JD, Kühlbrandt W (2012) Structure of the yeast F1Fo-ATP synthase dimer and its role in shaping the mitochondrial cristae. *P Natl Acad Sci USA* 109:13602-13607. <http://dx.doi.org/10.1073/pnas.1204593109>

de Rezende FF, Martins Lima A, Niland S, **Wittig I**, Heide H, Schroder K, Eble JA (2012) Integrin alpha7beta1 is a redox-regulated target of hydrogen peroxide in vascular smooth muscle cell adhesion. *Free Radical Biology & Medicine* 53:521-531.

Haack TB, Haberberger B, Frisch EM, Wieland T, Iuso A, Gorza M, Strecker V, Graf E, Mayr JA, Herberg U, Hennermann JB, Klopstock T, Kuhn KA, Ahting U, Sperl W, Wilichowski E, Hoffmann GF, Tesarova M, Hansikova H, Zeman J, Plecko B, Zeviani M, **Wittig I**, Strom TM, Schuelke M, Freisinger P, Meitinger T, Prokisch H (2012) Molecular diagnosis in mitochondrial complex I deficiency using exome sequencing. *J Med Genet* 49:277-283. <http://dx.doi.org/10.1136/jmedgenet-2012-100846>

Heide H, Bleier L, Steger M, Ackermann J, Dröse S, Schwamb B, Zörnig M, Reichert AS, Koch I, **Wittig I**, Brandt U (2012) Complexome profiling identifies TMEM126B as a component of the mitochondrial complex I assembly complex. *Cell Metab* 16:538-549. <http://dx.doi.org/10.1016/j.cmet.2012.08.009>

Leuner K, Schutt T, Kurz C, Eckert SH, Schiller C, Occhipinti A, Mai S, Jendrach M, Eckert GP, Kruse SE, Palmiter RD, Brandt U, Dröse S, **Wittig I**, Willem M, Haass C, Reichert AS, Müller WE (2012) Mitochondrion-derived reactive oxygen species lead to enhanced amyloid beta formation. *Antioxid Redox Signal* 16:1421-1433. <http://dx.doi.org/10.1089/ars.2011.4173>

Scheving R, **Wittig I**, Heide H, Albuquerque B, Steger M, Brandt U, Tegeder I (2012) Protein S-nitrosylation and denitrosylation in the mouse spinal cord upon injury of the sciatic nerve. *J Proteomics* 75:3987-4004.

Witan J, Bauer J, **Wittig I**, Steinmetz PA, Erker W, Unden G (2012) Interaction of the *Escherichia coli* transporter DctA with the sensor kinase DcuS: presence of functional DctA/DcuS sensor units. *Mol Microbiol* 85:846-861. <http://dx.doi.org/10.1111/j.1365-2958.2012.08143.x>

Hartmann N, Reichwald K, **Wittig I**, Dröse S, Schmeisser S, Luck C, Hahn C, Graf M, Gausmann U, Terzibasi E, Cellerino A, Ristow M, Brandt U, Platzer M, Englert C (2011) Mitochondrial DNA copy number and function decrease with age in the short-lived fish *Nothobranchius furzeri*. *Aging Cell* 10:824-831. <http://dx.doi.org/10.1111/j.1474-9726.2011.00723.x>

Weil A, Luce K, Drose S, **Wittig I**, Brandt U, Osiewacz HD (2011) Unmasking a temperature-dependent effect of the *P. anserina* i-AAA protease on aging and development. *Cell Cycle* 10:4280-4290. <http://dx.doi.org/10.4161/cc.10.24.18560>

Hoffmann J, Sokolova L, Preiss L, Hicks DB, Krulwich TA, Morgner N, **Wittig I**, Schägger H, Meier T, Brutschy B (2010) ATP synthases: cellular nanomotors characterized by LILBID mass spectrometry. *Phys Chem Chem Phys* 12:13375-13382.

Muster B, Kohl W, **Wittig I**, Strecker V, Joos F, Haase W, Bereiter-Hahn J, Busch K (2010) Respiratory chain complexes in dynamic mitochondria display a patchy distribution in life cells. *PLoS ONE* 5:13. <http://dx.doi.org/e11910>  
10.1371/journal.pone.0011910

Sokolova L, **Wittig I**, Barth HD, Schägger H, Brutschy B, Brandt U (2010) Laser-induced liquid bead ion desorption-MS of protein complexes from blue-native gels, a sensitive top-down proteomic approach. *Proteomics* 10:1401-1407.

Strecker V, Wumaier Z, **Wittig I**, Schägger H (2010) Large pore gels to separate mega protein complexes larger than 10 MDa by blue native electrophoresis: Isolation of putative respiratory strings or patches. *Proteomics* 10:3379-3387. <http://dx.doi.org/10.1002/pmic.201000343>

Sukhorukov VM, Dikov D, Busch K, Strecker V, **Wittig I**, Bereiter-Hahn J (2010) Determination of protein mobility in mitochondrial membranes of living cells. *BBA-Biomembranes* 1798:2022-2032. <http://dx.doi.org/10.1016/j.bbamem.2010.07.016>

**Wittig I**, Beckhaus T, Wumaier Z, Karas M, Schägger H (2010) Mass estimation of native proteins by blue native electrophoresis principles and practical hints. *Mol Cell Proteomics* 9:2149-2161.

Nübel E, **Wittig I**, Kerscher S, Brandt U, Schägger H (2009) Two-dimensional native electrophoretic analysis of respiratory supercomplexes from *Yarrowia lipolytica*. *Proteomics* 9:2408-2418.

Sheftel AD, Stehling O, Pierik AJ, Netz DJA, Kerscher S, Elsasser HP, **Wittig I**, Balk J, Brandt U, Lill R (2009) Human ind1, an iron-sulfur cluster assembly factor for respiratory complex I. *Mol Cell Biol* 29:6059-6073.

**Wittig I**, Schägger H (2009) Native electrophoretic techniques to identify protein-protein interactions. *Proteomics* 9:5214-5223. <http://dx.doi.org/10.1002/pmic.200900151>

**Wittig I**, Schägger H (2009) Supramolecular organization of ATP synthase and respiratory chain in mitochondrial membranes. *BBA-Bioenergetics* 1787:672-680. <http://dx.doi.org/10.1016/j.bbabbio.2008.12.016>

Wumaier Z, Nubel E, **Wittig I**, Schägger H (2009) Two-dimensional native electrophoresis for fluorescent and functional assays of mitochondrial complexes *Methods in Enzymology*, Vol 456, pp 153-168 (*Methods in Enzymology* vol 456)

Galkin A, Meyer B, **Wittig I**, Karas M, Schägger H, Vinogradov A, Brandt U (2008) Identification of the mitochondrial ND3 subunit as a structural component involved in the active/deactive enzyme transition of respiratory complex I. *J Biol Chem* 283:20907-20913. <http://dx.doi.org/10.1074/jbc.M803190200>

Morgner N, Zickermann V, Kerscher S, **Wittig I**, Abdrakhmanova A, Barth HD, Brutschy B, Brandt U (2008) Subunit mass fingerprinting of mitochondrial complex I. *BBA-Bioenergetics* 1777:1384-1391. <http://dx.doi.org/10.1016/j.bbabbio.2008.08.001>

**Wittig I**, Schägger H (2008) Features and applications of blue-native and clear-native electrophoresis. *Proteomics* 8:3974-3990. <http://dx.doi.org/10.1002/pmic.200800017>

**Wittig I**, Velours J, Stuart R, Schägger H (2008) Characterization of domain interfaces in monomeric and dimeric ATP synthase. *Mol Cell Proteomics* 7:995-1004. <http://dx.doi.org/10.1074/mcp.M700465-MCP200>

Meyer B, **Wittig I**, Trifilieff E, Karas M, Schägger H (2007) Identification of two proteins associated with mammalian ATP synthase. *Mol Cell Proteomics* 6:1690-1699. <http://dx.doi.org/10.1074/mcp.M700097-MCP200>

**Wittig I**, Carrozzo R, Santorelli FM, Schägger H (2007) Functional assays in high-resolution clear native gels to quantify mitochondrial complexes in human biopsies and cell lines. *Electrophoresis* 28:3811-3820. <http://dx.doi.org/10.1002/elips.200700367>

**Wittig I**, Karas M, Schägger H (2007) High resolution clear native electrophoresis for in-gel functional assays and fluorescence studies of membrane protein complexes. *Mol Cell Proteomics* 6:1215-1225. <http://dx.doi.org/10.1074/mcp.M700076-MCP200>

**Wittig I**, Schägger H (2007) Electrophoretic methods to isolate protein complexes from mitochondria *Mitochondria*, 2nd Edition, pp 723-741 (*Methods in Cell Biology* vol 80)

Busch KB, Bereiter-Hahn J, **Wittig I**, Schägger H, Jendrach M (2006) Mitochondrial dynamics generate equal distribution but patchwork localization of respiratory Complex I. *Mol Membr Biol* 23:509-520. <http://dx.doi.org/10.1080/09687860600877292>

Carrozzo R, **Wittig I**, Santorelli FM, Bertini E, Hofmann S, Brandt U, Schägger H (2006) Subcomplexes of human ATP synthase mark mitochondrial biosynthesis disorders. *Ann Neurol* 59:265-275. <http://dx.doi.org/10.1002/ana.20729>

Poncet D, Pauleau AL, Szabadkai G, Voza A, Scholz SR, Le Bras M, Briere JJ, Jalil A, Le Moigne R, Brenner C, Hahn G, **Wittig I**, Schägger H, Lemaire C, Bianchi K, Souquere S, Pierron G, Rustin P, Goldmacher VS, Rizzuto R, Palmieri F, Kroemer G (2006) Cytopathic effects of the cytomegalovirus-encoded apoptosis inhibitory protein vMIA. *J Cell Biol* 174:985-996.

**Wittig I**, Braun HP, Schägger H (2006) Blue native PAGE. *Nat Protoc* 1:418-428.