



## Curriculum Vitae

### Personal information Christian Marx

#### Work experience

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1. Employer: Leibniz Institute on Aging \_ Fritz Lipmann Institute (FLI), Jena
  - Start date: 082015
  - End date: 032022
  - Position: Postdoctoral researcher/ Scientist
  - Activities: Research on non \_canonical functions of Ataxia telangiectasia and Rad3 related (ATR) beyond its nuclear DDR signaling as well as on p53\_(in)dependent mitochondrial dysfunctions after DNA damage in human cancer cell lines. (see publications) Supervision of Bachelor, Master and PhD students and their projects in the lab.
  - Country: Germany
2. Employer: Leibniz Institute on Aging \_ Fritz Lipmann Institute (FLI), Jena
  - Start date: 012017
  - End date: 032022
  - Position: Gene technology, biosafety and biosecurity project leader
  - Activities: Supervision, application and management of biological and gene technology projects at the safety levels S1, S2 and Bio2. Risk assessments for ongoing and planned projects. Documentation of gene technology projects.
  - Country: Germany
3. Employer: Paul Ehrlich Institute (PEI) in the Center for Pandemic Vaccines and Therapeutics (ZEPAI)
  - Start date: 042022
  - End date:
  - Position: Research associate for regulatory coordination
  - Activities: Coordinating and connecting the tasks of ZEPAI with the regulatory network of the PEI. Communication with external (federal) agencies.
  - Country: Germany

#### Education and training

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1. Subject: University of Bayreuth
  - Start date: 102006
  - End date: 092009
  - Qualification: Bachelor of Science (B.Sc.) in Biochemistry
  - Organisation: Biochemistry, chemistry, protein structure and stability, mitochondrial functions
  - Country: Germany
2. Subject: University of Bayreuth
  - Start date: 102009
  - End date: 092011
  - Qualification: Master of Science (M.Sc.) in Biochemistry and Molecular Biology
  - Organisation: Biochemistry, chemistry, protein structure and stability, recombinant protein production and purification, fermentation
  - Country: Germany
3. Subject: Department of Biochemistry and Biophysics, CMB, at the Friedrich Schiller University (FSU) of Jena and in the Department of Toxicology, University Medical Center, Mainz
  - Start date: 122011
  - End date: 072015
  - Qualification: Ph.D. (Dr. rer. nat.) in Biochemistry
  - Organisation: Oncology, cancer cell biology, DNA damage response, toxicology, (geno)toxic chemotherapy, histone deacetylase (HDAC) inhibition, mitochondrial functions, cell metabolism, p53, apoptosis, human cell culture
  - Country: Germany
4. Subject: Friedrich Schiller University (FSU) of Jena
  - Start date: 042019
  - End date:
  - Qualification: Postdoctoral lecture qualification (Habilitation) in Biochemistry
  - Organisation: Teaching, Education, student training
  - Country: Germany

#### Additional information

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##### Publications

p53\_dependent and p53\_independent anticancer effects of different histone deacetylase inhibitors. Sonnemann J, Marx C, Becker S, Wittig S, Palani CD, Krämer OH, Beck JF (2014) Br J Cancer doi: 10.1038/bjc.2013.742 Survivin and YM155: how faithful is the liaison? Rauch A, Hennig D, Schäfer C, Wirth M, Marx C, Heinzel T, Schneider G, Krämer OH (2014) Biochim Biophys Acta doi: 10.1016/j.bbcan.2014.01.003 Reversible inactivation of CO dehydrogenase with thiol compounds. Kreß O, Gnida M, Pelzmann AM, Marx C, Meyer\_Klaucke W, Meyer O (2014) Biochem Biophys Res Commun doi: 10.1016/j.bbrc.2014.03.147 RETRA exerts anticancer activity in Ewing's sarcoma cells independent of their TP53 status. Sonnemann J, Grauel D, Blümel L, Hentschel J, Marx C, Blumrich A, Focke K, Becker S, Wittig S, Schinkel S, Krämer OH, Beck JF (2015) Eur J Cancer doi: 10.1016/j.ejca.2015.02.016 PHD1 regulates p53\_mediated colorectal cancer chemoresistance. Deschoemaeker S, Di Conza G, Lilla S, Martín\_Pérez R, Mennerich D, Boon L, Hendriks S, Maddocks OD, Marx C, Radhakrishnan P, Prenen H, Schneider M, Myllyharju J, Kietzmann T, Vousden KH, Zanivan S, Mazzone M (2015) EMBO Mol Med doi: 10.15252/emmm.201505492 Assessment of HDACi\_Induced Cytotoxicity. Marx\_Blümel L, Marx C, Kühne M,

Sonnemann J (2017) *Methods Mol Biol* doi: 10.1007/978\_1\_4939\_6527\_4\_3 The siRTUIN 1/2 inhibitor tenovin\_1 induces a nonlinear apoptosis\_inducing factor dependent cell death in a p53 null Ewing's sarcoma cell line. Marx C, Marx\_Blümel L, Lindig N, Thierbach R, Hoelzer D, Becker S, Wittig S, Lehmann R, Slevogt H, Heinzel T, Wang ZQ, Beck JF, Sonnemann J (2018) *Invest New Drugs* doi: 10.1007/s10637\_017\_0541\_1 LSD1 (KDM1A)\_independent effects of the LSD1 inhibitor SP2509 in cancer cells. Sonnemann J, Zimmermann M, Marx C, Ebert F, Becker S, Lauterjung ML, Beck JF (2018) *Br J Haematol* doi: 10.1111/bjh.14983 *Candida albicans*  $\beta$ \_Glucan Differentiates Human Monocytes Into a Specific Subset of Macrophages. Leonhardt J, Große S, Marx C, Siwczak F, Stengel S, Bruns T, Bauer R, Kiehnopf M, Williams DL, Wang ZQ, Mosig AS, Weis S, Bauer M, Heller R (2018) *Front Immunol* doi: 10.3389/fimmu.2018.02818 Biomimetic reconstruction of the hematopoietic stem cell niche for in vitro amplification of human hematopoietic stem cells. Marx\_Blümel L, Marx C, Weise F, Frey J, Perner B, Schlingloff G, Lindig N, Hampl J, Sonnemann J, Brauer D, Voigt A, Singh S, Beck B, Jäger UM, Wang ZQ, Beck JF, Schober A (2020) *PLoS One* doi: 10.1371/journal.pone.0234638 Bi\_allelic HPDL Variants Cause a Neurodegenerative Disease Ranging from Neonatal Encephalopathy to Adolescent Onset Spastic Paraplegia. Husain RA, Grimmel M, Wagner M, Hennings JC, Marx C, Feichtinger RG, Saadi A, Rostásy K, Radelfahr F, Bevoat A, Döbler\_Neumann M, Hartmann H, Colleaux L, Cordts I, Kobeleva X, Darvish H, Bakhtiari S, Krueer MC, Besse A, Ng AC, Chiang D, Bolduc F, Tafakhori A, Mane S, Ghasemi Firouzabadi S, Huebner AK, Buchert R, Beck\_Woedl S, Müller AJ, Laugwitz L, Nägele T, Wang ZQ, Strom TM, Sturm M, Meitinger T, Klockgether T, Riess O, Klopstock T, Brandl U, Hübner CA, Deschauer M, Mayr JA, Bonnen PE, Krägeloh\_Mann I, Wortmann SB, Haack TB (2020) *Am J Hum Genet* doi: 10.1016/j.ajhg.2020.06.015 Mapping sites of carboxymethyllysine modification on proteins reveals its consequences for proteostasis and cell proliferation. Di Sanzo S, Spengler K, Leheis A, Kirkpatrick JM, Rändler TL, Baldensperger T, Parca L, Marx C, Wang ZQ, Glomb MA, Ori A, Heller R (2020) *bioRxiv* doi: 10.1101/2020.10.16.342311 The Role of the Pathogen Dose and PI3K $\gamma$  in Immunometabolic Reprogramming of Microglia for Innate Immune Memory. Lajqi T, Marx C, Hudalla H, Haas F, Große S, Wang ZQ, Heller R, Bauer M, Wetzker R, Bauer R (2021) *Int J Mol Sci* doi: 10.3390/ijms22052578 Cooperative treatment effectiveness of ATR and HSP90 inhibition in Ewing's sarcoma cells. Marx C, Schaarschmidt MU, Kirkpatrick J, Marx\_Blümel L, Halilovic M, Westermann M, Hoelzer D, Meyer FB, Geng Y, Buder K, Schadwinkel HM, Siniuk K, Becker S, Thierbach R, Beck JF, Sonnemann J, Wang ZQ (2021) *Cell Biosci* doi: 10.1186/s13578\_021\_00571\_y ATR regulates neuronal activity by modulating presynaptic firing. Kirtay M, Sell J, Marx C, Haselmann H, Ceanga M, Zhou ZW, Rahmati V, Kirkpatrick J, Buder K, Grigaravicius P, Ori A, Geis C, Wang ZQ (2021) *Nat Commun* doi: 10.1038/s41467\_021\_24217\_2 Mechanistic insights into a p53\_regulated cytotoxicity of entinostat and irinotecan against colorectal cancer cells. Marx C, Sonnemann J, Beyer M, Maddocks OD, Lilla S, Hauzenberger I, Pié\_Staffa A, Siniuk K, Nunna S, Marx\_Blümel L, Westermann M, Wagner T, Meyer FB, Thierbach R, Mullins CS, Kdimati S, Linnebacher M, Neri F, Heinzel T, Wang ZQ, Krämer OH (2021) *Mol Oncol* doi: 10.1002/1878\_0261.13060 Molecular characterization of hematopoietic stem cells after in vitro amplification on biomimetic 3D PDMS cell culture scaffolds. Marx\_Blümel L, Marx C, Sonnemann J, Weise F, Hampl J, Frey J, Rothenburger L, Cirri E, Rahnis N, Koch P, Groth M, Schober A, Wang ZQ, Beck FB (2021) *Sci Rep* doi: 10.1038/s41598\_021\_00619\_6 Mapping protein carboxymethylation sites provides insights into their role in proteostasis and cell proliferation. Di Sanzo S, Spengler K, Leheis A, Kirkpatrick JM, Raendler TL, Baldensperger T, Dau T, Hennings C, Parca L, Marx C, Wang ZQ, Glomb MA, Ori A, Heller R (2021) *Nat Commun* doi: 10.1038/s41467\_021\_26982\_6 Butyrate and Metformin Affect Energy Metabolism Independently of the Metabolic Phenotype in the Tumor Therapy Model. Meyer FB, Marx C, Spangel SB, Thierbach R (2021) *Biomolecules* doi: 10.3390/biom11121831 Tight association of autophagy and cell cycle in leukemia cells. Gschwind A, Marx C, Just MD, Severin P, Behring H, Marx\_Blümel L, Becker S, Rothenburger L, Förster M, Beck JF, Sonnemann (2022) *Cell Mol Biol Lett* doi: 10.1186/s11658\_022\_00334\_8 Global metabolic alterations in colorectal cancer cells during irinotecan\_induced DNA replication stress. Marx C, Sonnemann J, Maddocks ODK, Marx\_Blümel L, Beyer M, Hoelzer D, Thierbach R, Maletzki C, Linnebacher M, Heinzel T, Krämer OH (2022) *Cancer Metab* doi: 10.1186/s40170\_022\_00286\_9 Oxidative Glucose Metabolism Promotes Senescence in Vascular Endothelial Cells. Stabenow LK, Zibrova D, Ender C, Helbing DL, Spengler K, Marx C, Wang ZQ, Heller R (2022) *Cells* doi: 10.3390/cells11142213

## Projects

## Memberships

Gesellschaft für Biochemie und Molekularbiologie e.V. (GBM)

## Other Relevant Information

Further education: • Good scientific practice – and conflict management • English conversation workshop • Scientific presentations • Leadership skills • Economy basics • Scientific writing and publishing for natural scientists • Grant proposal writing • Logic and critical reasoning • Introduction to science ethics • Project management • Rhetoric for teachers Certificates: • RTG1715 graduate program certificate • License to work with mice and rats \_ FELASA guidelines (category B) • Gene technology, biosafety and biosecurity certificate • Leadership in science • Teaching qualification basic