

Curriculum vitae, Mag. Claudia Lang, MSc.

Contact information

Name Claudia Lang
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WebPage: <http://nutrition.univie.ac.at/emerging-field-oxidative-stress-and-dna-stability/>

Research interest

Exploring cellular and physiological regulatory processes, associated with certain chronic diseases, including cardiovascular diseases, dyslipidaemia and cancer.

Current positions

- Prae-doc position at the Department of Nutritional Sciences

Higher Education

2007 Graduation from economics college, Neusiedl/See, Austria
2013 Graduation from University of Vienna (Magister degree, Philological and Cultural Studies, French)
2014 Graduation from University of Vienna (Master's degree, Nutritional Sciences)

Academic appointments

From 2016 employed at University of Vienna, Department of Nutritional Sciences
2014 Staff member (14 months): development of chemical cleaning systems at Thonhauser GmbH (Austria)
2013 Master's thesis (7 months) at Rowett Institute of Nutrition and Health Aberdeen (UK)
2011 Temporary assistant: Quality management at Gourmet Group (Austria)
2011 Research placements (3 months) at University of Natural Resources and Life Sciences Vienna and Institute Medical Chemistry (Austria)
2010 Erasmus placement and bachelor's thesis (9 months) at Université Bordeaux 2, Science de la vie Biochimie (France)
2009 Tutoring students in microbiology und hygiene at Medical University of Vienna (Austria).

Prizes/recognitions/peer review activities

2012: Performance scholarship 2012 of the University of Vienna

Selected cooperations

Prof. Vítek and Prof. Urbanová (CZ); Dr. Bulmer (AU); Dr. Joanne Blanchfield (AU); Prof. Chuck Ahlfors (US).

Curriculum vitae, Dr. Christine Mölzer, Bakk.

Contact information

Name Christine Mölzer
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Research interest

Exploring cellular regulatory processes, associated with certain chronic diseases, including cancer, diabetes, dyslipidaemia and cardiovascular diseases.

Current positions

- Post-doc position at the Department of Nutritional Sciences
- Lecturer at the Department of Nutritional Sciences

Higher Education

2002 Graduation from high school, Vienna, Austria
2007 Graduation from University of Vienna (Magister degree in Nutritional Sciences)
2008 Graduation from University of Vienna (Bachelor's degree in Sport Sciences)
2012 Graduation from University of Vienna (PhD in Natural Sciences)

Academic appointments

From 2009 employed at University of Vienna, Department of Nutritional Sciences
2007 short scientific stay (3 months) at the University of Reading (UK), Department of Food Biosciences
2008 Visiting scientist at the University of Reading (UK), Department of Food Biosciences (6 months)
2011 Visiting scientist at Griffith University (AU), Heart Foundation Research Centre (6 weeks)

Talks (max. 5)

1. In vitro anti-carcinogenic effects of bile pigments and derivatives – evidence from a cell culture study. Trieste Yellow Retreat 2012 (Trieste, Italy), June 21 – 22 (oral presentation).

2. Anti-genotoxic potential of bile pigments – evidence from the Vienna studies. Trieste Yellow Retreat 2011 (Trieste, Italy), June 6 – 7 (oral presentation).
3. Antioxidative and antimutagenic effects of selected bile pigments in vitro. Trieste Yellow Retreat 2010 (Trieste, Italy), March 8 – 9 (oral presentation).
4. The role of bilirubin in human health: implications for oxidative stress-mediated diseases. Lifestyle, oxidative stress and diabetes mellitus (Modra, Slovakia), November 8 – 9 2012 (oral presentation)

Prizes/recognitions/peer review activities

2004 - 2006: two merit scholarships by University of Vienna (Nutritional Sciences)

2007: stipend for a short scientific stay in the UK (KWA) by University of Vienna

2012: dissertation prize of the “Dr. Maria Schaumayer Stiftung”

Reviewer/Editorial

British Journal of Cancer; Environmental Biotechnology

Selected cooperations

Prof. Vitek and Prof. Urbanová (CZ); Dr. Bulmer (AU); Dr. Joanne Blanchfield (AU); Prof. Chuck Ahlfors (US).

Publication Summary

9 original research publications in total (all indexed), 5 thereof first-authored; 10 conference contributions (oral and poster presentations).

For a detailed CV, group description and publication list please see <http://nutrition.univie.ac.at/emerging-field-oxidative-stress-and-dna-stability/>

Most important scientific publications (all within the past 5 years)

1. Mölzer C, Huber H, Steyrer A, Ziesel GV, Wallner M, Hong HT, Blanchfield JT, Bulmer AC, Wagner K-H. *Bilirubin and Related Tetrapyrroles Inhibit Food-Borne Mutagenesis: A Mechanism for Antigenotoxic Action against a Model Epoxide*. J. Nat. Prod. 2013 76(10):1958-65. **(IF 3.285)**
2. Mölzer C, Huber H, Steyrer A, Ziesel GV, Wallner M, Goncharova I, Orlov S, Urbanová M, Ahlfors CE, Vitek L, Bulmer AC, Wagner K-H. *Interaction between TNF α and tetrapyrroles may account for their anti-genotoxic effects – a novel mechanism for DNA-protection*. J. Porphyr. Phthalocya. *In press*. DOI: 10.1142/S1088424613500995 **(IF 1.433)**
3. Mölzer C, Pflieger B, Putz E, Roßmann A, Schwarz U, Wallner M, Bulmer AC, Wagner KH. *In vitro DNA-damaging effects of intestinal and related tetrapyrroles in human cancer cells*. Exp. Cell Res. 2013 Feb; 319(4): 536-45. **(IF 3.557)**
4. Mölzer C, Huber H, Diem K, Wallner M, Bulmer AC, Wagner KH. *Extracellular and intracellular anti-mutagenic effects of bile pigments in the Salmonella typhimurium reverse mutation assay*. Toxicol. In Vitro 2013 Feb; 27(1): 433-7. **(IF 2.650)**

5. Mölzer C, Huber H, Steyrer A, Ziesel G, Ertl A, Plavotic A, Wallner M, Bulmer AC, Wagner KH. *In vitro antioxidant capacity and antigenotoxic properties of protoporphyrin and structurally related tetrapyrroles*. Free Radical Res. 2012 Nov; 46(11): 1369-77. **(IF 3.279)**
6. Wallner M, Antl N, Rittmannsberger B, Schreidl S, Najafi K, Müllner E, Mölzer C, Ferk F, Knasmüller S, Marculescu R, Doberer D, Poulsen HE, Vitek L, Bulmer AC, Wagner K-H. *Anti-genotoxic potential of bilirubin in-vivo: Damage to DNA in hyperbilirubinemic human and animal models*. Cancer Prev. Res. 2013 Aug; DOI 10.1158/1940-6207.capr-13-0125. **(IF 4.891)**
7. Wallner M, Bulmer AC, Mölzer C, Müllner E, Marculescu R, Doberer D, Wolzt M, Wagner OF, Wagner K-H. *Haem catabolism: a novel modulator of inflammation in Gilbert's syndrome*. Eur. J. Clin. Invest. 2013 Sep; 43 (9): 912–9. **(IF 3.365)**
8. Wallner M, Blassnigg SM, Marisch K, Pappenheim MT, Müllner E, Mölzer C, Nersesyan A, Marculescu R, Doberer D, Knasmüller S, Bulmer AC, Wagner KH. *Effects of unconjugated bilirubin on chromosomal damage in individuals with Gilbert's syndrome measured with the micronucleus cytome assay*. Mutagenesis 2012 Nov; 27(6): 731-5. **(IF 3.500)**
9. Carvalho-Wells AL, Helmholz K, Nodet C, Mölzer C, Leonard C, McKevith B, Thielecke F, Jackson KG, Tuohy KM. *Determination of the in vivo prebiotic potential of a maizebased whole grain breakfast cereal: a human feeding study*. Brit. J. Nutr. 2010 May; 104(9): 1353 – 56. **(IF 3.302)**

Non-ISI Journals/Trade journal publications

- „*Bilirubin: Gesund durch ausreichend Gallenfarbstoffe*“ Wagner K-H, Mölzer C, Wallner M (Ernährung Aktuell; Juli 2013)
- „*Bilirubin: Gesund durch Gallenfarbstoffe*“ (uni:view; April 2013)
- „*Gelb, aber gesund - anti-oxidative Gallenfarbstoffe*“ (dieUniversität online; Februar 2009)

Curriculum vitae, Univ. Prof. Dr. Karl-Heinz Wagner

Contact information

Name Karl-Heinz Wagner
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Research interest

Oxidative stress and DNA Damage are linked to the chronic diseases cardiovascular disease, cancer, diabetes type 2 but also to physiological processes like ageing. As an experimental working group we are focusing on lifestyle triggers such as the diet, single food compounds, phytochemicals, physical activity and physiologically active non- food compounds (e.g. bile pigments) and their effects on Oxidative Stress and DNA Stability mainly in human metabolism by initiating human intervention, cross-sectional or case-control studies. At the bench we are exploring the topic with modern techniques (biomarker) for the determination of antioxidative compounds, biochemical and molecular methods to monitor the oxidation of macromolecules and their oxidation products, approaches for the detection of ROS induced DNA and chromosomal damage, DNA repair and methods used to measure antioxidant enzymes, transcriptional factors and gene responses.

Current positions

- Full Professor for Nutritional Sciences and Food Quality
- Research Platform: "Active Aging", Chair
- Vice Chair of the Department of Nutritional Sciences, University of Vienna
- Leader of the Faculty Focus "Nutrition associated molecular mechanisms of ageing"
- Emerging Field Status for "Oxidative Stress and Oxidative DNA Damage"
- Since 2010: Adjunct Professor Griffith University, Australia
- Vice Dean of the Faculty of Life Sciences, University of Vienna
- President Austrian Nutrition Society

Higher Education

1999 PhD at University of Vienna
2004 Habilitation for Nutrition and Food Quality

Academic appointments

Since 2011 Full Prof. Nutrition and Food Quality at University of Vienna
2011 Offer for Chair and Dep. Head in Human Nutrition, Otago University, NZ
2010 Adjunct Full Professor for Nutrition, Griffith University
2010 Offer: Professorship for Nutrition and Public Health, Griffith University, Australia

- 2010 Shortlisted for Head in Human Nutrition and Metabolism, King's College London
- 2009 Visiting Scientist at the Heart Foundation Research Centre and Apoptosis Research Group, Griffith University and University of Queensland, Australia
- 2004 Venia docendi for "Nutritional Sciences and Food Quality", Associate Prof.
- 2003 Visiting Scientist in the group of Prof. Kamal-Eldin, SLU, Uppsala, Sweden
- 2002 Erasmus teacher exchange; Course conductor in Public Health in Kuopio, Fin.
- 1997 Full position as Assistant at the Institute of Nutritional

Funding ID – five important grants of the last five years

Funding organisation	Research topic of the project	Amount funded (KEuro)
EU, FP-7, IRSES	BIOAGE - Extension, enhancement and strengthening of established collaborations to create an international knowledge base for biomarker based research on ageing, PI, 2013-2016	110
University of Vienna	Research Platform Active Ageing, PI, 2011-2014; 2014-2017	585/430 (Total:1015)
Austrian Science Fund (FWF)	Physiological effects of bile pigments, stand alone project, PI, 2009-2013	330
EU Framework 6	Effect of a lifestyle intervention on risk factors for type-2diabetes complications, PI, 2009-2013	520 (280 for Vienna)
Framework 6: Priority 5 Food Quality and Safety	DOUBLEFRESH: Towards a new generation of healthier and tastier ready-to-eat meals with fresh ingredients WG leader, 2008-2012	1.5 Mio (230 for our group)
Austrian Science Fund (FWF)	Risk Assessment of Ironman Triathlon Participants: Genome Stability, Oxidative, Muscular and Systemic Stress, stand alone, PI, 2008-2011	310

Invited talks (max. 5)

1. Wagner K-H: Lifestyle changes as an important tool for improving DNA damage and oxidative stress? Invited Lecture at Harvard Medical School, Department of Surgery, 3rd May 2013, Boston, USA
2. Wagner K-H: Lifestyle changes as an important tool for improving health biomarker. Plenary Lecture at Gold Coast Health and Medical Research Conference. 29 – 30 November 2012 Gold Coast, Australia
3. Wagner K-H: Wallner M, Bulmer AC. Cardiovascular protection of subjects with Gilbert Syndrome: The significant role for lipid metabolism. Trieste Yellow Retreat

(TYR), International Centre for Genetic Engineering and Biotechnology, 21 – 22 June 2012, Trieste, Italy

4. Wagner K-H: Health and Nutrition: An international perspective. 1st Ergothioneine Congress. 15 - 17. 07. 2011, UCLA, Los Angeles, USA.

5. Wagner K-H: Endurance exercise and DNA stability: Is there a link to duration and intensity? 10th International Conference on Mechanisms of Antimutagenesis and Anticancerogenesis. 26 - 29. 09. 2010, Guarujá, Brasil.

Prizes/recognitions/peer review activities

6. Awarded with the University Research Platform Active Aging, chair of the Platform which comprises various national and international research groups

7. Emerging Field Status (Title: Oxidative Stress and Oxidative DNA Damage) at Faculty of Life Sciences, University of Vienna)

8. Several Infrastructure grants of the University of Vienna

9. Several offers for a full professorship/chair in Nutrition (Australia, Zealand, Austria)

10. International reviewer of various Universities, Member of various Scientifics Boards/Advisory Boards, Organizer of several scientific meetings in Austria with a participation rate from 100-3.800

Reviewer/Editorial

Annals Nutrition Metabolism, European Journal of Lipid Science and Technology, Journal of Agricultural and Food Chemistry, European Journal of Food Science and Technology, European Journal of Clinical Nutrition, European Journal of Nutrition, Italian Journal of Nutrition, Planta, Journal of Dermatology, Molecular Nutrition and Food Research, Food Chemical Toxicology, Free Radical Research, Journal of the American Oil Chemists Society, Trends in Food Science and Technology, Mutagenesis, Mutation Research, Cancer Prevention Research

Several Guest editorials

Selected cooperations

Prof. Berg and König, Univ. Freiburg (D); Prof. Kamal-Eldin, Univ. of Agricultural Sciences Uppsala (S); Prof. Anklam, European Commission; (I); Prof. Piironen, Univ. of Helsinki, (Fin); Prof. Coombes, Univ. of Queensland (Aus); Prof. Knasmüller; Medical Univ. of Vienna (A); Prof. Poulsen, Central Hospital, Copenhagen (Den); Prof. Arouma, Tourou College, New York (USA) Prof. Fenech, CSIRO, Adelaide (Aus); Profs. Wegiel/Otterbein, Harvard University, Boston (USA); Dr. Bulmer Griffith University (Aus); Prof. Cameron-Smith, University of Auckland (NZ); Prof. Collins, University of Norway; Prof. Griffiths, Queensland University of Technology

Member

Austrian Nutrition Society; American Oil Chemist's Society: Member-at-Large of the European Section since 2004 (since 2006 vice president European section), European Academy of Nutritional Sciences (EANS), Free Radical Research, Nordic Lipidforum, Austrian Toxicological Society, Gesellschaft für Umwelt und Mutationsforschung (Society of Environment and Mutation Research), Scientific Board of the Association of Nutritional Scientists in Austria

Publication Summary

126 (co)-authored research publications and reviews (only ISI), about 200 lectures (many invited) and (co)authored conference contributions, about 25 book chapters and

2 books; since 2005: 4.5 Mio Euro third party funds (FWF, EU,..); at the moment supervisor of 10 PhD students and approx. 20 master students (all of them on third party funds)

For a detailed CV, group description and publication list please see <http://nutrition.univie.ac.at/emerging-field-oxidative-stress-and-dna-stability/>

10 most important scientific publications

1. Böhm T, Berger H, Nejabat M, Riegler T, Kellner F, Kuttke M, Sagmeister S, Bazanella M, Stolze K, Daryabeigi A, Bintner N, Murkovic M, Wagner KH, Schulte-Hermann R, Rohr-Udilova N, Huber W, Grasl-Kraupp B. (2013): Food-derived peroxidized fatty acids may trigger hepatic inflammation: a novel hypothesis to explain steatohepatitis. *J Hepatol.* 2013 May 8. doi:pii: S0168-8278(13)00280-8. 10.1016/j.jhep.2013.04.025. [Epub ahead of print]; IF=9.858 (4th highest journal in the area of Gastroenterology and Hepatology) - TOP
2. Bulmer A, Verkade, H, Wagner K-H. (2013): Bilirubin and beyond: a review of lipid status in Gilbert's syndrome and its relevance to cardiovascular disease protection. *Progress in Lipid Research.* 52:193-205. IF=10.250 (Top Journal in the Nutrition area) – TOP
3. Mölzer C, Pflerger B, Putz EM, Roßmann A, Schwarz U, Wallner M, Bulmer AC, Wagner K-H. (2013): In vitro DNA-damaging effects of intestinal and related tetrapyrroles in human cancer cells. *Exp Cell Res.* 319:536-455. IF=3.557
4. Müllner E, Brath H, Pleifer S, Schiermayr C, Baiertl A, Wallner M, Fastian T, Millner Y, Paller K, Henriksen T, Poulsen H, Forstner E, Wagner K-H. (2013): Vegetables and PUFA-rich plant oil reduce DNA strand breaks in individuals with type 2 diabetes. *Mol Nutr Food Res.* 57(2):328-338. IF=4.310 (Top Journal in the Food area) – TOP
5. Müllner E, Brath H, Adrigan S, Bulla MT, Stieglmayer S, Wallner M, Toferer D, Marek R, Wagner K-H. (2013): Genome damage in peripheral blood lymphocytes of diabetic and - healthy individuals after intervention with vegetables and plant oil. *Mutagenesis*, IF=3.500 – TOP
6. Neubauer O, Sabapathy S, Lazarus R, Jowett JMB, Desbrow B, Cameron-Smith C, Hasler L, Wagner K-H, Bulmer A. (2013): Transcriptome analysis of neutrophils after endurance exercise reveals novel signaling mechanisms in the immune response to physiological stress. *J. Applied Physiol.* 114:1677-1688. IF=3.484
7. Wallner M, Marculescu R, Doberer D, Wolzt M, Wagner O, Vitek L, Bulmer AC, Wagner KH. (2013): Protection from age-related increase in lipid biomarkers and inflammation contributes to cardiovascular protection in Gilbert's syndrome. *Clin Sci (Lond.)* 125(5):257-264 IF=4.859 – TOP
8. Wallner M, Antl N, Rittmannsberger B, Schreidl s, Najafi K, et al. ..., Bulmer AC, Wagner KH (2013): Anti-genotoxic potential of bilirubin in vivo: Damage to DNA in hyperbilirubinemic human and animal models. *Cancer Prev Res*, IF=4.908 – TOP
9. Boon, A-C., Hawkins, C.L., Bisht, K., Coombes J.S., Bakrania, B., Wagner, K-H., Bulmer, A.C. Reduced circulating oxidised LDL is associated with hypocholesterolemia and enhanced thiol status in Gilbert's syndrome, *Free Radical Biology and Medicine.* 52:2120-2127, IP=5.271 – TOP

10. Reichhold S., Neubauer O., Bulmer A., Knasmüller S., Wagner K-H[□]. (2009): Endurance exercise and DNA stability: Is there a link to duration and intensity. *Mut. Res. Rev.*, 682: 28-38, IF=7.017 –TOP

Publications of the last 5 years

ISI Journals

1. Halper B, Hofmann M, Oesen S, Franzke B, Strasser EM, Wagner KH, Wessner B; Vienna Active Ageing Study Group. Influence of age and physical fitness on miRNA-21, TGF- β and its receptors in leukocytes of healthy women. *Exerc Immun Reviews* 2014 IF=9.929 – TOP

Kanzler S, Manschein M, Lammer G, Wagner KH. The nutrient composition of European ready meals: Protein, fat, total carbohydrates and energy. *Food Chem.* 2015 Apr 1;172:190-6.