

Alexander G. Haslberger

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ORCID: 0000-0001-9699-537X

Education:

1956 March 10th Borne in Vienna, Austria
1966 -1974 High-school, BRG Rosasgasse, Vienna, Austria
1974 - 1982 University of Vienna, biology and medicine

University diplomas:

2016 Visiting professor ship, Univ. Teheran
11/1982 Promotion, Dr. phil. Univ. Vienna, Austria
11/2000 Lectureship for microbiology, University of Vienna
2004 Fulbright Guest Professorship, Univ. Minneapolis, US

Professional experience:

1972, 1973: Summer, work in public general hospital, Vienna, Austria
1983-1985 Post doctoral fellow, microbial immunology, Sandoz Research Institute, Vienna,
1985 -1992: Head of pharmaceutical research laboratory in the field of microbiology,
Immunology and cell biology , Sandoz Research Institute, Vienna
Sabbaticals in research laboratories (An Arbor; Prof. Vorhees,1983; San Francisco, V.A.
hospital,1984; UC Davis, Cal., Prfs. Kado, Syvanen, 2000)
1986 - Senior scientist, leader of working group and lecturing at the University of
Vienna ; microbial immunology, food safety, ecology
1992- 2002 Head of scientific department biotechnology for the Austrian Ministry of
Health: biotechnology and somatic gene therapy. Head of Scientific Committee.
2005- Fed Min. health, for special projects
2000 - 2004 EC research project: GMOBILITY: Safety evaluation of horizontal gene transfer
from organisms to microflora of the food
2002- 2004 Research scientist, World Health Organisation, department for food safety,
work on WHO study GM food safety
2004 Expert for the US- FIFRA SCIENTIFIC ADVISORY PANEL (SAP), GMO foods
2003, 2004 Member of expert pool of European Commission, biotechnology.
2004- 2005 Fulbright Guest Professor, University of Minnesota, US: environmental health
2009 WHO, consultant for Fed. Ministry health, Teheran: Food safety and Biotech

Research Interests

- Immune- and inflammatory responses to bacterial cell wall components, vaccines

- Monitoring of bacterial communities and probiotics in food chain and in the GI tract.
- Genetic analysis, nutrigenetics and epigenetic mechanisms
- Environmental health, Public health Genomics

Participation in international activities, Boards, reports (short)

Editorial Board: Public Health Genomics

Scientific Board: Austrian Microbiota Initiative, AMICI

E.C. research program on horizontal gene transfer, GMOBILITY, 2000-2003.

WHO report on modern food biotechnology, human health and development, 2005

UN- Millennium Ecosystem Evaluation, UN lead author under chapter 7, Food production, technologies and human health, 2003 –2006

American Chemical Society Meeting, September 2006. San Francisco, keynote presentation.

Allergenicity and modern food biotechnology

EU research network: PHGEN: Public Health Genomics, 2006-

ASEA network; Cooperation with Chulalongkorn University, Thailand, fermented soy and molecular analysis

Int. Conf. of Nutrition, ICN 2009, Bangkok: coordination, co-chair Session epigenetics

Int. Conf of Nutrition, ICN 2013, Granada; coordination co-chair; Session public health Genomics

Main recent research projects:

ROS, DNA mutations in metabolic syndrome and epigenetic regulation of repair enzymes by Nutrition, FWF, end 12/ 2016

Bacterial diversity in the GI tract of immune- compromised consumers. Austrian National Bank

Microbiota and Probiotics , FWF, Austria

PHGEN, Public health genomics, EU research Network

Metabolic syndrome and bacterial GI communities, FFG

Peer reviewed publications of the last 5 years, Haslberger

Remely M, Ferk F, Sterneder S, Setayesh T, Roth S, Kepcija T, Noorizadeh R, Rebhan I, Greunz M, Beckmann J, Wagner KH, Knasmüller S, Haslberger AG. EGCG Prevents High Fat Diet-Induced Changes in Gut Microbiota, Decreases of DNA Strand Breaks, and Changes in Expression and DNA Methylation of Dnmt1 and MLH1 in C57BL/6J Male Mice. *Oxid Med Cell Longev*. 2017;

Pointner A, Magnet U, Tomeva E, Dum E, Bruckmueller C, et al. (2017) EGCG Containing Combined Dietary Supplement Affects Telomeres and Epigenetic Regulation. *J Nutr Food Sci* 7:577.

Aumueller E., Hippe B., Remely M., Gnauer S., Rust P., Haslberger A.G. DNA Methylation on *Interleukin- 6* Correlates with Weight Loss in Obese Women. *Jacobs Journal of Biomarkers*, 2016 in print

Remely M, Haslberger AG. The microbial epigenome in metabolic syndrome. *Mol Aspects Med*. 2016 Sep 23. pii: S0098-2997(16)30014-0. d

Remely M, Hippe B, Zanner J, Aumueller E, Brath H, Haslberger AG. Gut microbiota of obese, type 2 diabetic individuals is enriched in *Faecalibacterium prausnitzii*, *Akkermansia muciniphila* and *Peptostreptococcus anaerobius* after weight loss. *Endocr Metab Immune Disord Drug Targets*. 2016

Brettfeld C., Maver A., Aumueller E., Peterlon B., Haslberger AG. Integration of OMICS Data for Obesity. (2015) *J Diab Obes* 2(3): 1- 09

Hippe B, Remely M, Aumueller E, Pointner A, Magnet U, Haslberger AG. *Faecalibacterium prausnitzii* phylotypes in type two diabetic, obese, and lean control subjects. *Benef Microbes*. 2016 Sep;7(4):511-7.

Bileck A, Ferk F, Al-Serori H, Koller VJ, Muqaku B, Haslberger A, Auwärter V, Gerner C, Knasmüller S. Impact of a synthetic cannabinoid (CP-47,497-C8) on protein expression in human cells: evidence for induction of inflammation and DNA damage. *Arch Toxicol*. 2016 Jun;90(6):1369-82

Tannorella P, Stoccoro A, Tognoni G, Petrozzi L, Salluzzo MG, Ragalmuto A, Siciliano G, Haslberger A, Bosco P, Bonuccelli U, Migliore L, Coppedè F. Methylation analysis of multiple genes in blood DNA of Alzheimer's disease and healthy individuals. *Neurosci Lett*. 2015 Jul 23;600:143-7.

Aumueller E, Remely M, Baeck H, Hippe B, Brath H, Haslberger AG. Interleukin-6 CpG Methylation and Body Weight Correlate Differently in Type 2 Diabetes Patients Compared to Obese and Lean Controls. *J Nutrigenet Nutrigenomics*. 2015;8(1):26-35.

Remely M, de la Garza AL, Magnet U, Aumueller E, Haslberger AG. Obesity: epigenetic regulation – recent observations. *Biomol Concepts*. 2015 Jun;6(3):163-75.

Remely M, Stefanska B, Lovrecic L, Magnet U, Haslberger AG. Nutriepigenomics: the role of nutrition in epigenetic control of human diseases. *Curr Opin Clin Nutr Metab Care*. 2015 Jul;18(4):328-33.

Haslberger A, Terkeltaub R. Editorial: Can GPR43 Sensing of Short-Chain Fatty Acids Unchain Inflammasome-Driven Arthritis? *Arthritis Rheumatol*. 2015 Jun;67(6):1419-23.

de la Garza AL, Etxeberria U, Haslberger A, Aumueller E, Martínez JA, Milagro FI. Helichrysum and Grapefruit Extracts Boost Weight Loss in Overweight Rats Reducing Inflammation. *J Med Food*. 2015 Aug;18(8):890-8.

Remely M, Lovrecic L, de la Garza AL, Migliore L, Peterlin B, Milagro FI, Martinez AJ, Haslberger AG. Therapeutic perspectives of epigenetically active nutrients. *Br J Pharmacol*. 2015 Jun;172(11):2756-68. doi: 10.1111/bph.12854. Review.

de la Garza AL, Etxeberria U, Palacios-Ortega S, Haslberger AG, Aumueller E, Milagro FI, Martínez JA. Modulation of hyperglycemia and TNF α -mediated inflammation by helichrysum and grapefruit

Remely M, Aumueller E, Jahn D, Hippe B, Brath H, Haslberger AG. Microbiota and epigenetic regulation of inflammatory mediators in type 2 diabetes and obesity. *Benef Microbes*. 2014 Mar;5(1):33-43.

Hippe B, Remely M, Bartosiewicz N, Riedel M, Nichterl C, Schatz L, Pummer S, Haslberger A. Abundance and diversity of GI microbiota rather than IgG4 levels correlate with abdominal inconvenience and gut permeability in consumers claiming food intolerances. *Endocr Metab Immune Disord Drug Targets*. 2014 Mar;14(1):67-75.

Remely M, Aumueller E, Merold C, Dworzak S, Hippe B, Zanner J, Pointner A, Brath H, Haslberger AG. Effects of short chain fatty acid producing bacteria on epigenetic regulation of FFAR3 in type 2 diabetes and obesity. *Gene*. 2014 Mar 1;537(1):85-92

Switzeny OJ, Müllner E, Wagner KH, Brath H, Aumüller E, Haslberger AG. Vitamin and antioxidant rich diet increases MLH1 promoter DNA methylation in DMT2 subjects. *Clin Epigenetics*. 2012 Oct 1; 4(1):19.

Remely M, Dworzak S, Hippe B, Zwielehner J, Aumüller E, et al. (2013) Abundance and Diversity of Microbiota in Type 2 Diabetes and Obesity. *J Diabetes Metab* 4: 253

CAROLINE BRETTFELD, STEPHANIE ENGLERT, EVA AUMUELLER, ALEXANDER G. HASLBERGER (2012) Genetic and epigenetic interactions in adaptive thermogenesis pathways in association with obesity from a Public Health Genomics perspective, *IJPH*, Vol 9

Stefanska B, Karlic H, Varga F, Fabianowska-Majewska K, Haslberger A. Epigenetic mechanisms in anti-cancer actions of bioactive food components—the implications in cancer prevention. *Br J Pharmacol*. 2012 Sep;167(2):279-97.

Pirker A, Stockenhuber A, Remely M, Harrant A, Hippe B, Kamhuber C, Adelman K, Stockenhuber F, Haslberger AG. (2012) Effects of antibiotic therapy on the gastrointestinal microbiota and the influence of *Lactobacillus casei*. *Food Agric Immunol*:

Giahi L, Aumueller E, Elmadfa I, Haslberger AG. Regulation of TLR4, p38 MAPkinase, I κ B and miRNAs by inactivated strains of lactobacilli in human dendritic cells. *Benef Microbes*. 2012 Jun 1;3(2):91-8.

Zwielehner J, Lassl C, Hippe B, Pointner A, Switzeny OJ, Remely M, Kitzweger E, Ruckser R, Haslberger AG. Changes in human fecal microbiota due to chemotherapy analyzed by TaqMan-PCR, 454 sequencing and PCR-DGGE fingerprinting. *PLoS One*. 2011;612

Top 10 Publications Haslberger

Remely M, Ferik F, Sterneder S, Setayesh T, Roth S, Kepcija T, Noorizadeh R, Rebhan I, Greunz M, Beckmann J, Wagner KH, Knasmüller S, Haslberger AG. EGCG Prevents High Fat Diet-Induced Changes in Gut Microbiota, Decreases of DNA Strand

Breaks, and Changes in Expression and DNA Methylation of Dnmt1 and MLH1 in C57BL/6J Male Mice. **Oxid Med Cell Longev**. 2017;2017:3079148.

Remely M, Haslberger AG. The microbial epigenome in metabolic syndrome. **Mol Aspects Med**. 2017; 54:71-77.

Haslberger A, Terkeltaub R. Editorial: Can GPR43 Sensing of Short-Chain Fatty Acids Unchain Inflammation-Driven Arthritis? **Arthritis Rheumatol**. 2015 Jun;67(6):1419-23.

Remely M, Lovrecic L, de la Garza AL, Migliore L, Peterlin B, Milagro FI, Martinez AJ, Haslberger AG. Therapeutic perspectives of epigenetically active nutrients. **Br J Pharmacol**. 2015 Jun;172(11):2756-68.

Switzeny OJ, Müllner E, Wagner KH, Brath H, Aumüller E, Haslberger AG. Vitamin and antioxidant rich diet increases MLH1 promoter DNA methylation in DMT2 subjects. **Clin Epigenetics**. 2012 Oct 1;4(1):19

Stefanska B, Karlic H, Varga F, Fabianowska-Majewska K, Haslberger A. Epigenetic mechanisms in anti-cancer actions of bioactive food components--the implications in cancer prevention. **Br J Pharmacol**. 2012 Sep;167(2):279-97

Zwiehler J, Lassl C, Hippe B, Pointner A, Switzeny OJ, Remely M, Kitzweger E, Ruckser R, Haslberger AG. Changes in human fecal microbiota due to chemotherapy analyzed by TaqMan-PCR, 454 sequencing and PCR-DGGE fingerprinting. **PLoS One**. 2011;6(12):

Thaler R, Karlic H, Rust P, Haslberger AG. Epigenetic regulation of human buccal mucosa mitochondrial superoxide dismutase gene expression by diet. **Br J Nutr**. 2009 Mar;101(5):743-9.

Haslberger AG. Codex guidelines for GM foods include the analysis of unintended effects. **Nat Biotechnol**. 2003 Jul;21(7):739-41.

Haslberger A. GMO contamination of seeds. **Nat Biotechnol**. 2001 Jul;19(7):613