

Curriculum Vitae – Univ.-Prof. Dr. med. univ. Gregor Gorkiewicz

1 – Person / Allgemeine Angaben

Name	Gorkiewicz, Gregor, *22.12.1971, male
Nationality	Austrian
Address	Institute of Pathology; Medical University of Graz; Auenbruggerplatz 25, 8036 Graz; Austria. Phone: +43-316-385-83649; Fax: +43-316-385-13432; Email: gregor.gorkiewicz@medunigraz.at
Position	Full Professor

2 – Academic Education / Akademische Ausbildung mit Abschluss

2010	Board certification in Pathology
1990 - 1999	Study of Medicine, Karl-Franzens University of Graz, Austria; (thesis: "Typing of campylobacters according to sequence variation in the 16S rRNA gene").

3 – Scientific Degrees / Wissenschaftliche Abschlüsse

2014	Habilitation in Pathology, Medical University of Graz, Austria
July 1999	M.D. degree

4 – Academic Appointments / Beruflicher Werdegang ab Studienabschluss

2015-present	Professor for Medical Microbiome Research, Medical University of Graz, Austria
2015-2016	Sabbatical Univ. of Hohenheim, Dept. of Nutrigenomics, Stuttgart, Germany
2011- 2015	Assistant Professor of Pathology, Medical University of Graz
2014	Habilitation in Pathology, Medical University of Graz, Austria
2010	Board certification in Pathology
2009	Resident in Internal Medicine, Department of Internal Medicine, Division of Gastroenterology and Hepatology, Medical University of Graz (Head: Univ. Prof. Dr. G. Krejs)
2005 – 2009	Resident in Pathology, Institute of Pathology, Medical University of Graz (Heads: Univ. Prof. Dr. H. Denk; Univ. Prof. Dr. G. Höfler)
2004 – 2005	Resident in Medical Microbiology, Institute of Hygiene, Medical University of Graz (Head: Univ. Prof. DDr. E. Marth)
2000 & 2002	Visiting Professor at the Institute of Molecular Biology, Biochemistry and Microbiology, Karl Franzens University of Graz
1999 - 2004	Postdoctoral Fellow, Institute of Molecular Biology, Biochemistry and Microbiology, Karl Franzens University of Graz (Head: Univ. Prof. Dr. R. Zechner)

5 – Additional information / Sonstiges

since 2010	Laboratory head: Infectious diseases molecular diagnostics laboratory; Institute of Pathology, Medical University Graz
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6 – Honors ▪ Awards / Preise und Auszeichnungen

2005 Best oral presentation, 13th International Workshop on Campylobacter, Helicobacter and related Organisms, Gold Coast, Australia

7 – Externally funded projects / geförderte Drittmittelprojekte

2012-2020 principal investigator in the international PhD program “Doktoratskolleg DK: Molecular Fundamentals of Inflammation funding period 1 & 2; Austrian Science Fund (FWF) W1241; amount of funding: 612.000 €/ PI

2015-2016 BioTechMed (Federal Ministry of Science, Research & Economy); Post-Doc pool “Metagenomics for functional analyses and modeling of microbiome data” total amount of funding: 127.000€

2008-2011 Stand-alone project P20479-B05 Austrian Science Fund (FWF) “Analysis of *Campylobacter fetus* virulence mechanisms”; total amount of funding: 225.000 €

8 – Publications / Publikationen

Al-Zoughbi W, Pichler M, **Gorkiewicz G**, Guertl-Lackner B, Haybaeck J, Jahn SW, Lackner C, Liegl-Atzwanger B, Popper H, Schauer S, Nusshold E, Kindt AS, Trajanoski Z, Speicher MR, Haemmerle G, Zimmermann R, Zechner R, Vesely PW, Hoefler G. Loss of adipose triglyceride lipase is associated with human cancer and induces mouse pulmonary neoplasia. *Oncotarget*. 2016. doi: 10.18632/oncotarget.9418.

Krause R, Halwachs B, Thallinger GG, Klymiuk I, **Gorkiewicz G**, Hoenigl M, Prattes J, Valentin T, Heidrich K, Buzina W, Salzer HJ, Rabensteiner J, Prüller F, Raggam RB, Meinitzer A, Moissl-Eichinger C, Högenauer C, Quehenberger F, Kashofer K, Zollner-Schwetz I. Characterisation of *Candida* within the Mycobiome/Microbiome of the Lower Respiratory Tract of ICU Patients. *PLoS One*. 2016;11(5):e0155033.

Graaf-van Bloois Lv, Miller WG, Yee E, **Gorkiewicz G**, Forbes KJ, Zomer AL, Wagenaar JA, Duim B. *Campylobacter fetus* Subspecies Contain Conserved Type IV Secretion Systems on Multiple Genomic Islands and Plasmids. *PLoS One*. 2016;11(4):e0152832.

Radnai B, Sturm EM, Stančić A, Jandl K, Labocha S, Ferreirós N, Grill M, Hasenoehrl C, **Gorkiewicz G**, Marsche G, Heinemann Á, Högenauer C, Schicho R. Eosinophils Contribute to Intestinal Inflammation via Chemoattractant Receptor-homologous Molecule Expressed on Th2 Cells, CRTH2, in Experimental Crohn's Disease. *J Crohns Colitis*. 2016. pii: jjw061.

Fröhlich EE, Farzi A, Mayerhofer R, Reichmann F, Jačan A, Wagner B, Zinser E, Bordag N, Magnes C, Fröhlich E, Kashofer K, **Gorkiewicz G**, Holzer P. Cognitive impairment by antibiotic-induced gut dysbiosis: Analysis of gut microbiota-brain communication. *Brain Behav Immun*. 2016. pii: S0889-1591(16)30040-X.

Kienesberger, S; Cox, LM; Livanos, A; Zhang, XS; Chung, J; Perez-Perez, GI; **Gorkiewicz G**, G; Zechner, EL; Blaser, MJ. Gastric *Helicobacter pylori* infection affects local and distant microbial populations and host responses. *Cell Rep*. 2016;14(6):1395-407.

Till, H; Castellani, C; Moissl-Eichinger, C; **Gorkiewicz, G**; Singer, G Disruptions of the intestinal microbiome in necrotizing enterocolitis, short bowel syndrome, and Hirschsprung's associated enterocolitis. *Front Microbiol*. 2015; 6: 1154-1154.

Montalban-Arques, A; De Schryver, P; Bossier, P; **Gorkiewicz, G**; Mulero, V; Gatlin, DM; Galindo-Villegas, J Selective Manipulation of the Gut Microbiota Improves Immune Status in Vertebrates. *Front Immunol*. 2015; 6: 512-512.

Bashir M; Prietl B; Tauschmann M; Mautner SI; Kump PK; Treiber G; Wurm, P; **Gorkiewicz, G**; Högenauer C; Pieber TR Effects of high doses of vitamin D3 on mucosa-associated

- gut microbiome vary between regions of the human gastrointestinal tract. *Eur J Nutr.* 2016; 55(4):1479-89.
- Zollner-Schwetz, I; Herzog, KA; Feierl, G; Leitner, E; Schneditz, G; Sprenger, H; Prattes, J; Petritsch, W; Wenzl, H; Kump, P; **Gorkiewicz, G**; Zechner, E; Högenauer, C The Toxin-Producing Pathobiont *Klebsiella oxytoca* Is Not Associated with Flares of Inflammatory Bowel Diseases. *Dig Dis Sci.* 2015; 60(11):3393-3398
- Seidel, MG; Hirschmugl, T; Gamez-Diaz, L; Schwinger, W; Serwas, N; Deutschmann, A; **Gorkiewicz, G**; Zenz, W; Windpassinger, C; Grimbacher, B; Urban, C; Boztug, K Long-term remission after allogeneic hematopoietic stem cell transplantation in LPS-responsive beige-like anchor (LRBA) deficiency. *J Allergy Clin Immunol.* 2015; 135(5):1384-1390
- Herzog, KA; Schneditz, G; Leitner, E; Feierl, G; Hoffmann, KM; Zollner-Schwetz, I; Krause, R; **Gorkiewicz, G**; Zechner, EL; Högenauer, C Genotypes of *Klebsiella oxytoca* isolates from patients with nosocomial pneumonia are distinct from those of isolates from patients with antibiotic-associated hemorrhagic colitis. *J Clin Microbiol.* 2014; 52(5):1607-1616
- Kienesberger, S; Sprenger, H; Wolfgruber, S; Halwachs, B; Thallinger, GG; Perez-Perez, GI; Blaser, MJ; Zechner, EL; **Gorkiewicz, G*** Comparative Genome Analysis of *Campylobacter fetus* Subspecies Revealed Horizontally Acquired Genetic Elements Important for Virulence and Niche Specificity. *PLoS One.* 2014; 9(1):e85491-e85491 [* corresponding author]
- Schneditz, G; Rentner, J; Roier, S; Pletz, J; Herzog, KA; Bückner, R; Troeger, H; Schild, S; Weber, H; Breinbauer, R; **Gorkiewicz, G**; Högenauer, C; Zechner, EL Enterotoxicity of a nonribosomal peptide causes antibiotic-associated colitis. *Proc Natl Acad Sci U S A.* 2014; 111(36):13181-13186
- Gorkiewicz G***; Thallinger GG; Trajanoski S; Lackner S; Stocker G; Hinterleitner T; Gully C; Högenauer C. Alterations in the colonic microbiota in response to osmotic diarrhea. *PLoS One.* 2013; 8(2):e55817-e55817 [* corresponding author]
- Halwachs, B; Höftberger, J; Stocker, G; Snajder, R; **Gorkiewicz, G**; Thallinger, GG High-Troughput Characterization and Comparison of Microbial Communities. *Biomed Tech (Berl).* 2013; 3(6):
- Kump, PK; Gröchenig, HP; Lackner, S; Trajanoski, S; Reicht, G; Hoffmann, KM; Deutschmann, A; Wenzl, HH; Petritsch, W; Krejs, GJ; **Gorkiewicz, G***; Högenauer, C Alteration of intestinal dysbiosis by fecal microbiota transplantation does not induce remission in patients with chronic active ulcerative colitis. *Inflamm Bowel Dis.* 2013; 19(10):2155-2165 [* corresponding author]
- Seper, A; Hosseinzadeh, A; **Gorkiewicz, G**; Lichtenegger, S; Roier, S; Leitner, DR; Röhm, M; Grutsch, A; Reidl, J; Urban, CF; Schild, S *Vibrio cholerae* evades neutrophil extracellular traps by the activity of two extracellular nucleases. *PLoS Pathog.* 2013; 9(9):e1003614-e1003614
- Tauschmann, M; Prietl, B; Treiber, G; **Gorkiewicz, G**; Kump, P; Högenauer, C; Pieber, TR Distribution of CD4(pos) -, CD8(pos) - and regulatory T cells in the upper and lower gastrointestinal tract in healthy young subjects. *PLoS One.* 2013; 8(11):e80362-e80362
- Gorkiewicz, G**; Trajanoski, S; Högenauer, C *Bradyrhizobium enterica* in cord colitis syndrome. *N Engl J Med.* 2013; 369(19):1866-1867 [letter with original data]
- Belaj, K; Gary, T; Eller, P; Deutschmann, H; Beham-Schmid, C; **Gorkiewicz, G**; Brodmann, M A case of upper extremity deep vein thrombosis due to Kikuchi Fujimoto disease. *Vasa.* 2012; 41(5):371-374
- Krones, E; Petritsch, W; Valentin, T; Durchschein, F; **Gorkiewicz, G**. Visceral dissemination of herpes zoster with multiple ulcers in the upper gastrointestinal tract of an apparently immunocompetent patient. *Endoscopy.* 2012; 44 Suppl 2 UCTN(9):E302-E303

- Schweiger, M; Paar, M; Eder, C; Brandis, J; Moser, E; **Gorkiewicz, G**; Grond, S; Radner, FP; Cerk, I; Cornaciu, I; Oberer, M; Kersten, S; Zechner, R; Zimmermann, R; Lass, A G0/G1 switch gene-2 regulates human adipocyte lipolysis by affecting activity and localization of adipose triglyceride lipase. *J Lipid Res.* 2012; 53(11):2307-2317
- Sprenger, H; Zechner, EL; **Gorkiewicz, G*** So close and yet so far - Molecular Microbiology of *Campylobacter fetus* subspecies. *Eur J Microbiol Immunol (Bp).* 2012; 2(1): 66-75. [* corresponding author]
- Das, SK; Eder, S; Schauer, S; Diwoy, C; Temmel, H; Guertl, B; **Gorkiewicz, G**; Tamilarasan, KP; Kumari, P; Trauner, M; Zimmermann, R; Vesely, P; Haemmerle, G; Zechner, R; Hoefler, G Adipose triglyceride lipase contributes to cancer-associated cachexia. *Science.* 2011; 333(6039):233-238
- Gary T; Seinost G; Hafner F; **Gorkiewicz G**; Brodmann M Cystic medial necrosis Erdheim Gsell as a rare reason for spontaneous rupture of the ascending aorta. *Vasa.* 2011; 40(2): 147-149.
- Kienesberger S; Schober Trummler C; Fauster A; Lang S; Sprenger H; **Gorkiewicz G***; Zechner EL Interbacterial macromolecular transfer by the *Campylobacter fetus* subsp. *venerealis* type IV secretion system. *J Bacteriol.* 2011; 193(3):744-758 [* corresponding author]
- Kienesberger S; **Gorkiewicz G**; Wolinski H; Zechner EL New molecular microbiology approaches in the study of *Campylobacter fetus*. *Microb Biotechnol.* 2011; 4(1): 8-19.
- Amrein K; Posch U; Langner C; **Gorkiewicz G**; Högenauer C Transfusion-associated graft-versus-host disease presenting as severe high-volume diarrhoea in a patient with Goodpasture's syndrome. *Intensive Care Med.* 2010; 36(7):1271-1272
- Gorkiewicz, G***; Kienesberger, S; Schober, C; Scheicher, SR; Güllly, C; Zechner, R; Zechner, EL A genomic island defines subspecies-specific virulence features of the host-adapted pathogen *Campylobacter fetus* subsp. *venerealis*. *J Bacteriol.* 2010; 192(2): 502-517. [* corresponding author]
- Joainig, MM; **Gorkiewicz, G**; Leitner, E; Weberhofer, P; Zollner-Schwetz, I; Lippe, I; Feierl, G; Krause, R; Hinterleitner, T; Zechner, EL; Högenauer, C Cytotoxic effects of *Klebsiella oxytoca* strains isolated from patients with antibiotic-associated hemorrhagic colitis or other diseases caused by infections and from healthy subjects. *J Clin Microbiol.* 2010; 48(3):817-824
- Schoiswohl G; Schweiger M; Schreiber R; **Gorkiewicz G**; Preiss-Landl K; Taschler U; Zierler KA; Radner FP; Eichmann TO; Kienesberger PC; Eder S; Lass A; Haemmerle G; Alsted TJ; Kiens B; Hoefler G; Zechner R; Zimmermann R Adipose triglyceride lipase plays a key role in the supply of the working muscle with fatty acids. *J Lipid Res.* 2010; 51(3):490-499
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- Gorkiewicz G**. 2009. Nosocomial and antibiotic-associated diarrhoea caused by organisms other than *Clostridium difficile*. *Int J Antimicrob Agents* 33: S37-S41.
- Gürtl B, Kratky D, Guelly C, Zhang L, **Gorkiewicz G**, Das SK, Tamilarasan KP, Hoefler G. 2009. Apoptosis and fibrosis are early features of heart failure in an animal model of metabolic cardiomyopathy. *Int J Exp Pathol.* 90(3):338-46.
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- Development of experimental genetics tools for *Campylobacter fetus*. *Appl Environ Microbiol* 73: 4619-4630.
- Högenauer C, Langner C, Beubler E, Lippe IT; Schicho R, **Gorkiewicz G**, Krause R, Gerstgrasser N, Krejs GJ, Hinterleitner TA. 2006. *Klebsiella oxytoca* as a causative organism of antibiotic-associated hemorrhagic colitis. *N Engl J Med* 355: 2418-2426.
- Haemmerle G, Lass A, Zimmermann R, **Gorkiewicz G**, Meyer C, Rozman J, Heldmaier G, Maier R, Theussl C, Eder S, Kratky D, Wagner EF, Klingenspor M, Höfler G, Zechner R. 2006. Defective lipolysis and altered energy metabolism in mice lacking adipose triglyceride lipase. *Science* 312: 734-737.
- Lass A, Zimmermann R, Haemmerle G., Riederer M, Schoiswohl G, Schweiger M, Kienesberger P, Strauss JG, **Gorkiewicz G**, Zechner R. 2006. Adipose triglyceride lipase-mediated lipolysis of cellular fat stores is activated by CGI-58 (ABHD5) and defective in Chanarin-Dorfman Syndrome. *Cell Metab* 3: 309-319.
- Eisner A, Feierl G, **Gorkiewicz G**, Dieber F, Kessler HH, Marth E, Köfer J. 2005. High prevalence of VanA-type vancomycin-resistant Enterococci in Austrian poultry. *Appl Environ Microbiol.* 71(10):6407-9.
- Eisner A, **Gorkiewicz G**, Feierl G, Leitner E, Köfer J, Kessler HH, Marth E. 2005. Identification of glycopeptide-resistant enterococci by VITEK 2 system and conventional and real-time polymerase chain reaction. *Diagn Microbiol Infect Dis.* 53(1):17-21.
- Krause R, Auner HW, **Gorkiewicz G**, Wölfler A, Daxboeck F, Linkesch W, Krejs GJ, Wenisch C, Reisinger EC. 2004. Detection of catheter-related bloodstream infections by the differential-time-to-positivity method and gram stain-acridine orange leukocyte cytospin test in neutropenic patients after hematopoietic stem cell transplantation. *J Clin Microbiol.* 42(10):4835-7.
- Czermak C, Lehofer M, Wagner EM, Prietl B, **Gorkiewicz G**, Lemonis L, Rohrhofer A, Legl T, Schauenstein K, Liebmann PM. 2004. Reduced dopamine D3 receptor expression in blood lymphocytes of smokers is negatively correlated with daily number of smoked cigarettes: a peripheral correlate of dopaminergic alterations in smokers. *Nicotine Tob Res.* 6(1):49-54.
- Gorkiewicz G***, Feierl G, Schober C, Dieber F, Köfer J, Zechner R, Zechner EL. 2003. Species-specific identification of campylobacters by partial 16S rRNA gene sequencing. *J Clin Microbiol.* 41(6):2537-46. * *corresponding author*
- Krause R, Ramschak-Schwarzer S, **Gorkiewicz G**, Schnedl WJ, Feierl G, Wenisch C, Reisinger EC. 2002. Recurrent septicemia due to *Campylobacter fetus* and *Campylobacter lari* in an immunocompetent patient. *Infection.* 30(3):171-4.
- Gorkiewicz G***, Feierl G, Zechner R, Zechner EL. 2002. Transmission of *Campylobacter hyointestinalis* from a pig to a human. *J Clin Microbiol.* 40(7):2601-5. * *corresponding author*

9 – Selected oral presentations (invited only) / ausgewählte Vorträge (nur Einladungen)

- The human microbiome and the development of colorectal cancer; 27th European Congress of Pathology. SEP 5-9, 2015; Belgrade, Serbia.
- The human gut microbiome – a promising diagnostic & therapeutic target; 27th European Congress of Pathology; SEP 5-9, 2015; Belgrade, Serbia.
- The Microbiom Österreichischen Gesellschaft für Gastroenterologie und Hepatologie (ÖGGH), Jahrestagung & Fortbildungskurs ; JUN 18-20; Salzburg, AUSTRIA.
- Diagnostic microbiota analysis possibilities & experiences, 2nd Theodor Escherich Symposium for Medical Microbiome Research; OKT 19; Graz, AUSTRIA.

- Immunpathologie der Spondylarthritiden aus der Sicht des Mikrobiota Spezialisten, From Bench to Bedside – Translationale Immunologie; MAI 23-24, 2014; Graz, AUSTRIA.
- Theorie der probiotischen Therapie; 1. Deutsche Mikrobiom-Tage der Deutschen Gesellschaft für Probiotische Medizin; SEP 26-27, 2014; Berchtesgaden, GERMANY.
- Diagnostic microbiome analysis; Nutritional lecture series; DEZ 16, 2014; Univ. Hohenheim, Stuttgart, GERMANY.
- Mikrobiom "Hope or Hype in der Gastroenterologie" 17. Gastroenterologisch-Hepatologisches Wintertreffen; MAR 18-21, 2014; Galtür, AUSTRIA.
- Early Mucosal Changes in Gastro Esophageal Reflux Disease – Histology; 2013; -Falk Workshop, Falk Symposium 189 on GERD and Eosinophilic Esophagitis; SEP 5-7; Graz, AUSTRIA.
- Pathophysiologie der Tumorkachexie; Arbeitsgemeinschaft für klinische Ernährung "Ernährung bei Tumorerkrankungen"; JAN 24, 2013; Wien, Austria.
- Pathophysiology of the GI microbiota; Annual meeting, Austrian Society for Antimicrobial Chemotherapy, joint with the Paul Ehrlich Society and the Slovenian Society of Chemotherapy; NOV 30-DEZ 1, 2012; Wien, Austria.
- Gastrointestinales-Mikrobiom und Immunsystem; OEPROM - Oesterreichische Gesellschaft fuer Probiotische Medizin; Dez 1, 2012; Wien, Austria
- Intestinal microbiota & immune system; abstract book. 2012; -43rd Annual Meeting - Austrian Society for Internal Medicine (OEGIM); SEP 17-19, 2012; Graz, Austria.
- Medicine meets microbial ecology understanding gastrointestinal diseases by microbial community analysis; -4th Annual Meeting - Austrian Association of Molecular Life Sciences and Biotechnology; SEP 17-19, 2012; Graz, Austria.
- Detection of microorganisms by new generation sequencing 26th Meeting of the Adriatic Society of Pathology; Jun 30- Jul 1, 2012; Split, Croatia.
- Comparative genetic analysis of Campylobacter fetus subspecies: model system for bacterial niche specificity and mucosal infection; -CampyGerms Campylobacter Conference ; OKT 14-15, 2011; Göttingen, Germany.
- Colonic microbiota alterations during diarrhea and new agents of antibiotic associated colitis Novartis Research Seminar; JAN 21, 2010; Siena, ITALY.
- Gastrointestinal microbiota in health and disease. Recent insights into this undiscovered biosphere by high-throughput pyrosequencing 4th Genome Sequencer FLX User Conference; JUN 15-17, 2010; Athens, GREECE.
- Colonic microbiota in health and disease. Recent insights into this undiscovered biosphere by high-throughput pyrosequencing Roche, GS Junior workshop; JUN 1, 2010; Vilvoorde, BELGIUM.
- Analysis of the human gut microbiota by massively parallel DNA pyrosequencing. -22nd European Congress of Pathology; SEP 4-9, 2009; Florence, ITALY.
- Nosocomial and antibiotic-associated diarrhoea, other agents than Clostridium difficile ISC International Conference - New Views on Clostridium difficile infections; 26-27.9.2008; Leipzig, Germany.
- Recent advances in molecular medicine Translating molecular technologies into clinical practice Siemens Corporate Research Symposium; MAY 29, 2008; Princeton, USA.
- Bedeutung der normalen Darmflora für Gesundheit und Krankheitsentstehung 39. ÖGIM Jahrestagung; 17-20.9.2008; Graz, Austria.