

Unsere wichtigsten Forschungsleistungen im Jahr 2022. Es gelang uns in vielen Teilbereichen wichtige Forschungsarbeiten abzuschließen und neue zu initiieren:

Kariologie/Streptokokken: In einer internationalen Arbeitsgruppe (Brasilien, Schweiz, Deutschland) gelang es uns die kariesprotektive Wirkung pflanzlicher Extrakte des brasilianischen Urwaldes in neuartigen Zahncremes zu untersuchen (Braga et al. 2022).

Implantologie: Mit einer der RWTH-Strategie gemäßen interfakultären und internationalen Studie haben wir neuartige anti-mikrobielle/anti-inflammatorische Nanogele zum Schutz wertvoller Titanimplantate in der Mundhöhle entwickelt und *in-vitro* getestet (Shi et al. 2022).

Parodontologie: In einer aufwendigen klinisch-mikrobiologischen Studie der Zahnkliniken Aachen (federführend), Halle und Mainz wurden drei nicht-chirurgische Behandlungskonzepte bei der marginalen Parodontitis verglichen, sowohl auf klinischer, wie auch auf Mikrobiom/Pathobiont-Ebene (Schulz et al. 2022; Abdelbary, Schittenhelm et al. 2022, sowie Kongressbeitrag in Kopenhagen).

Systemische Erkrankungen und Medikationen reflektieren sich in der Mundhöhle: Als Spezialisten der oralen Mikrobiologie und Immunologie sind unsere Methoden im Stande die Fernwirkungen von entzündlichen Darmerkrankungen (Abdelbary, Hatting, ...Trautwein und Conrads, 2022) sowie Medikationen (Phosphatbinder) bei Dialysepatienten (Abdelbary, Kuppe, Floege und Conrads, 2022) in der menschlichen Mundhöhle zu erkennen. Dem Speichel kann man also auf relativ unkomplizierte Weise nützliche Informationen über die lokale wie auch systemische (körperweite) Gesundheit des Spenders entlocken. In einem Beitrag für Zahnmedizin up2date wurden zudem die guten und bösen Eigenschaften des oralen Mikrobioms erläutert (Conrads, 2022).

Kongress-Beiträge/Sonstiges: *Porphyromonas gingivalis* ist der bedeutendste Pathobiont bei der Parodontitis. In Aachen legen wir zu diesem Erreger innerhalb eines IZKF- (Interdisziplinäres Zentrum für klinische Forschung) geförderten Projekts die weltweit größte Stamm- und Genomdaten- Sammlung an. In einem Vortrag bei dem 16. Kongress der *Anaerobic Society of the Americas* (ASA 28.-30.07) konnten wir Daten über die globale antimikrobielle Empfindlichkeit (phäno- und genotypisch) von *P. gingivalis* vorstellen (Abdelbary et al. 2022). Auf der 74. Jahrestagung der Deutschen Gesellschaft für Hygiene und Mikrobiologie (05.-07.09.2022) wurde unsere Arbeit zur Wechselwirkung zwischen Mund- und Darmmikrobiom vorgestellt (Abdelbary, Hatting, ...Trautwein und Conrads, 2022). Aachen hat unter der Präsidentschaft von unserem Direktor Prof. A. Braun die 2022-Jahrestagung der Deutschen Gesellschaft für Laserzahnheilkunde ausgerichtet (01.10.2022) und unsere Abteilung hat einen Übersichtsbeitrag zur Infektionsprophylaxe mittels Lasereinsatz beigetragen (Conrads, 2022). Der neue Masterstudiengang "M.Sc. Periodontology" an der RWTH International Academy (<https://master-periodontology.com/de/>) ging mit 19 Teilnehmern aus 12 Ländern im WS2022-23 in die zweite Runde (Braun [Leitung], Conrads, Deschner u.v.a.). Unsere Abteilung hat zu einem Buch zur Typisierung von Infektionserkrankungen beigetragen (Claros et al. 2022, In: Filippis and M.L. McKee [Eds.]: *Molecular Typing in Bacterial Infections*, 2nd. Edition, Springer Nature, ISBN Print 978-3-030-83216-2).

2022 Peer-reviewed publications

Braga, A.S., **M. M. H. Abdelbary**, R. R. Kim, F. P. de Souza Rosa de Melo, L. L. Saldanha, A. L. Dokkedal, **G. Conrads**, M. Esteves-Oliveira, and A. C. Magalhães, The effect of toothpastes containing natural extracts on total bacterial species of a microcosm biofilm and on enamel caries development, *Antibiotics (Basel)*. 2022 Mar 19;11(3):414. doi: 10.3390/antibiotics11030414.

Shi, Y., C. Bergs, **M. M. H. Abdelbary**, A. Pich, and **G. Conrads** Isoeugenol-functionalized nanogels inhibit peri-implantitis associated bacteria in vitro *Anaerobe* 2022 Mar 30:102552. doi: 10.1016/j.anaerobe.2022.102552.

Abdelbary, M. M. H., F. Schittenhelm, S. S. Yekta-Michael, S. Reichert, S. Schulz., A. Kasaj, A. Braun, **G. Conrads***, and J. M. Stein*. Impact of three non-surgical full-mouth periodontal treatments on total bacterial load and selected periodontopathogens. *Antibiotics* 2022, 11(5), 686. doi.org/10.3390/antibiotics11050686. *shared senior position.

Schulz, S., J. M. Stein, A. Schumacher, D. Kupitz, S. Michael, F. Schittenhelm, **G. Conrads**, H.-G. Schaller, and S. Reichert. Non-surgical periodontal treatment options and their impact on subgingival microbiome. *J Clinical Medicine* 2022 Feb 23;11(5):1187. doi: 10.3390/jcm11051187.

Abdelbary, M. M. H., C. Kuppe, S. S. Yekta-Michael, T. Krüger, J. Floege, and **G. Conrads**. Impact of sucroferic oxyhydroxide on the oral and intestinal microbiome in hemodialysis patients. *Scientific Reports*, 2022 Jun 10;12(1):9614. doi: 10.1038/s41598-022-13552-z.

Abdelbary, M.M.H., M. Hatting, **A. Bott**, A. Dahlhausen, D. Keller, C. Trautwein, and **G. Conrads**. The oral-gut axis: salivary and fecal microbiome dysbiosis in patients with inflammatory bowel disease. *Frontiers in Cellular and Infection Microbiology*, 12:1010853. doi: 10.3389/fcimb.2022.1010853

Pressespiegel:

Conrads, G. Das orale Mikrobiom: Freund oder Feind? Up2date, Eine überwiegend naturwissenschaftliche Betrachtung. *Zahnmedizin up2date* 2022; 16(05): 401-411. doi: 10.1055/a-1929-7572.

2022 Book(chapters)

Claros, M.C., Z.C. Claros, S. S. Yekta-Michael, and **G. Conrads**
Oral and Intestinal Bacteroidetes
Chapter 7 (20 Seiten)
In: I. de Filippis and M.L. McKee (Eds.): *Molecular Typing in Bacterial Infections*, 2nd. Edition, Springer Nature Switzerland AG 2022, ISBN Print 978-3-030-83216-2, eBook 978-3-030-83217-9.

2022 Meeting abstracts V= Vortrag, P=Poster

Abdelbary, M.M.H., Tim Klomp, and Conrads, G. (V)
A Genomic Portrait Reveals the Genetic Plasticity and Evolutionary Adaptation of *Porphyromonas gingivalis*
In: Abstract book "2022 Anaerobe Seattle"
The 16th Biennial Congress of the Anaerobe Society of the Americas
28.07.-32.07.2022 in Seattle, Washington, USA

Abdelbary, M. M. H., F. Schittenhelm, S. S. Yekta-Michael, S. Reichert, S. Schulz., A. Kasaj, A. Braun, **G. Conrads***, and J. M. Stein*. (P)
Impact of three non-surgical full-mouth periodontal treatments on total bacterial load and selected pathobionts.
In: J Clin Periodontology 2022;143-288
EuroPerio10, 15.-18.06.2022 Copenhagen, Denmark

Abdelbary, M.M.H., M. Hatting, A. Dahlhausen, A. Bott, C. Trautwein, and **G. Conrads**. The oral-gut axis - salivary and fecal dysbiosis in inflammatory bowel diseases (IBD).
In: Abstract Band https://t3-1.conventus-hetzner.de/fileadmin/congress/media/dghm2022/pdf/DGHM_2022_abstracts.pdf
74. Jahrestg. der Deutschen Gesellschaft für Hygiene und Mikrobiologie (DGHM),
05-07.09.2022, Berlin

Conrads, G.

Infektionsprävention mittels Laser – Aktueller Stand und Perspektive
30. Jahrestagung der Deutschen Gesellschaft für Laserzahnheilkunde,
01.10.2022 in Aachen

2021 Peer-reviewed publications

Walther, W., S. Zumbülte, C. M. Faerber, R. J. Wierichs, H. Meyer-Lueckel, **G. Conrads, K. Henne**, and M. Esteves-Oliveira. Analysis of relative bacterial activity and *ldh*-gene expression of caries-associated bacteria in a site-specific natural biofilm
Clin Oral Investig. 2021 Jun;25(6):3669-3679. doi: 10.1007/s00784-020-03691-w. Epub 2020 Nov 23.

Goldschmidt, G.-M., M. Krok-Borkowicz, R. Zybala, E. Pamula, R. Telle, **G. Conrads***, K. Schickle*. Biomimetic in situ co-precipitation of calcium phosphate/silver composite on zirconia ceramic materials for surface functionalization in terms of antimicrobial and osteoconductive properties
Dent Mater. 2021 Jan;37(1):10-18. doi: 10.1016/j.dental.2020.09.018. Epub 2020 Nov 26.
*shared senior position

Braga, A.S., F. P. de Souza Rosa de Melo, L. L. Saldanha, A. L. Dokkedal, T. Meißner, M. Bemann, E. Schulz-Kornas, R. Haak, M. M. H. Abdelbary, **G. Conrads**, A. C. Magalhães, M. Esteves-Oliveira
The effect of solutions containing extracts of *Vochysia tucanorum* Mart., *Myrcia bella* Cambess., *Matricaria chamomilla* L. and *Malva sylvestris* L. on cariogenic bacterial species and enamel caries development.
Caries Res. 2021 May 17:1-12. doi: 10.1159/000515234. Online ahead of print.

Abdelbary, M.H.H., G. Willms and G. Conrads

A new species-specific typing method for salivarius group streptococci based on the dephospho-coenzyme A kinase (coaE) gene sequencing
Front Cell Infect Microbiol. 2021 Aug 6;11:685657. doi: 10.3389/fcimb.2021.685657. eCollection 2021.

Jansen, P. M., M. H. H. Abdelbary, and G. Conrads

A concerted probiotic activity to inhibit periodontitis-associated bacteria
PLoS One 2021 Mar 5;16(3):e0248308. doi: 10.1371/journal.pone.0248308. eCollection 2021.

Conrads, G., T. Klomp, D. Deng, J.-S- Wenzler, A. Braun, and **M. M. H. Abdelbary**. The antimicrobial susceptibility of *Porphyromonas gingivalis*: genetic repertoire, global phenotype,

and review of the literature. *Antibiotics* 2021, 2021 Nov 24;10(12):1438. doi: 10.3390/antibiotics10121438.

Wenzler, J.-S., F. Krause, S. Böcher, W. Falk, A. Birkenmaier, **G. Conrads**, and A. Braun
Antimicrobial impact of different air-polishing powders in a subgingival biofilm model
Antibiotics 2021, Nov 28;10(12):1464. doi: 10.3390/antibiotics10121464.

Böcher, S., **G. Conrads**, A. Braun und J.-S- Wenzler
Integration photochemischer Prozesse in die Parodontistherapie
Quintessenz Zahnmedizin, Jhg. 72, Ausgabe 04, April 2021.

Conrads, G. Orales Mikrobiom: opportunistische Pathogene reduzieren – aber wie?
Hamburger Expertenkreis Mikrobiom
Newsletter 03/2021, Ferring Arzneimittel GmbH in Kooperation mit der DGMIM (Deutsche
Gesellschaft für Mukosale Immunologie und Mikrobiom)

Pressespiegel:

Conrads, G. Gurgeln gegen Corona? Ein Interview von Helmut Broeg.
Focus-Magazin. Ausgabe 07-2021

2021 Meeting abstracts

Conrads, G.

Cross-talk between the oral and intestinal microbiome (V)
8th. Hamburg Expert Meeting, Microbiome, inflammatory bowel and other gastrointestinal
diseases. 26.04.2021, virtuell.

M.M.H. Abdelbary, G. Wilms and G. Conrads (P)

The evolution and population structure of *Streptococcus parasanguinis*
In: Abstract – Band https://www.dghm-kongress.de/fileadmin/congress/media/dghm2021/pdf/DGHM_2021_digital_Programme_booklet.pdf
73. Jahrestg. der Deutschen Gesellschaft für Hygiene und Mikrobiologie (DGHM), 12-
14.09.2021, virtuell.

Jansen, P. M., M. H. H. Abdelbary, and G. Conrads (V)

A concerted probiotic activity to inhibit periodontitis-associated bacteria
13th. European Oral Microbiology Workshop
27.-28.05.2021 virtual, organized by Tromsø, Norway.

2020 Peer-reviewed publications

Kniha, K., S. Möhlhenrich, a. Bock, N. Ayoub, A. Modabber, F. Hölzle, **G. Conrads***, and E. Goloborodko*
*geteilte Seniorposition
Evaluation of the bactericidal effect of cold atmospheric pressure plasma on contaminated human bone – an in vitro study
British Journal of Oral and Maxillofacial Surgery, 2020 Apr;58(3):329-333. doi: 10.1016/j.bjoms.2020.01.003. Epub 2020 Jan 20. PMID: 31969253

Froeber, K., C. Bergs, A. Pich, and G. Conrads

Biofunctionalized zinc peroxide nanoparticles inhibit peri-implantitis associated anaerobes and *Aggregatibacter actinomycetemcomitans* pH-dependent.
Anaerobe, 2020 Apr;62:102153. doi: 10.1016/j.anaerobe.2020.102153. Epub 2020 Jan 18.

Herrmann, H., J.S. Kern, Th. Kern, J. Lautensack, **G. Conrads**, and S. Wolfart
Early bacterial adhesion/biofilm formation and mature plaque composition on four different
dental implant materials: an in vivo human study.
Clinical Oral Implant Research, 2020 Sep 1. doi: 10.1111/clr.13656. Online ahead of print.

Conrads, G. Zutritt verboten: Wie im Mund die Invasion von Mikroben verhindert wird
Quintessenz Zahnmedizin, Jhg. 71, Ausgabe 12, Dez. 2020.

Conrads, G. Das orale Mikrobiom und seine kariogenen Spezies
ZM Zahnärztliche Mitteilungen 23-24/2020 Dez 2020.

Pressespiegel:

Conrads, G. Mundflora: Schwer was los. Ein Interview von Claudia Doyle
Apotheken Umschau Online, 13.11.2020.

2020 Book Chapters:

M. C. Claros, Z.C. Claros, S. S. Yekta-Michael, and **G. Conrads**
Oral and Intestinal Bacteroidetes
Chapter 7 (20 Seiten)
In: I. de Filippis and M.L. McKee (Eds.): Molecular Typing in Bacterial Infections, 2nd.
Edition,
Springer Science+Business Media New York
Submitted 01-2020, In press

2020 Besondere Auszeichnung:

Franziska Hetrodt: Beste Dissertation in der Kategorie Zahnmedizin 2020 für die Arbeit:

Hetrodt, F., J. Lausch, H. Meyer-Lückel, G. Conrads, and C. Apel, Evaluation of restorative
materials containing preventive additives in a secondary caries model in vitro. Caries
Research, 2019 Feb 20:1-10. doi: 10.1159/000496401. Gelichzeitig Oral-B-goldprize 2018,
Deutsche Gesellschaft für Kinderzahnheilkunde.

2020 Meeting abstracts

M.M.H. Abdelbary, G. Wilms and G. Conrads (P)

Typing method for identifying and discriminating salivarius group streptococci
6th. Joint Conference of the German Society for Hygiene and Microbiology (DGHM) and the
Association for General and Applied Microbiology (VAAM).
In: BIOSpektrum (expected)
08-11 March 2020 in Leipzig, Germany.

M.M.H. Abdelbary, G. Wilms and G. Conrads (P)

Comparative genomics reveal insights into genomic plasticity and habitat adaptation of
Streptococcus parasanguinis
6th. Joint Conference of the German Society for Hygiene and Microbiology (DGHM) and the
Association for General and Applied Microbiology (VAAM).
In: BIOSpektrum (expected)
08-11 March 2020 in Leipzig, Germany.

A. S. Braga, J. G. Pires¹, F. Melo, L. L. Saldanha, A. L. Dokkedal, **G. Conrads**, A. C.
Magalhães, M. Esteves-Oliveira (V)

Effect of different experimental mouthrinses containing natural/herbal extracts on caries-associated bacteria. A microcosm biofilm model 66th. ORCA Congress (The European Organisation for Caries Research), session 1: Microbiology 08.-11. 07. 2020 in Cagliari, Sardinia, Italy.

Froeber, K., C. Bergs, A. Pich, and G. Conrads (P)

Biofunctionalized zinc peroxide nanoparticles inhibit peri-implantitis associated anaerobes
In: Abstract book "2020 Anaerobe Seattle"

The 15th Biennial Congress of the Anaerobe Society of the Americas

23.07.-26.07.2020 in Seattle, Washington, USA (as Zoom conference because of Corona-Pandemic)

Y. Shi, C. Bergs, A. Pich, and G. Conrads (P)

Isoeugenol-modified nanogel-coatings for implant protection

In: Abstract book "2020 Anaerobe Seattle"

The 15th Biennial Congress of the Anaerobe Society of the Americas

23.07.-26.07.2020 in Seattle, Washington, USA (as Zoom conference because of Corona-Pandemic)

Braga, A.S., J. G. Pires, F. Melo, L. L. Saldanha, A. L. Dokkedal, **G. Conrads**, A. C.

Magalhães and M. Esteves-Oliveira (P)

Effect of different experimental mouthrinses containing natural/herbal extracts on caries-associated bacteria. A microcosm biofilm model

37th. Annual Congress Brazilian Division of IADR (SBPqO). Virtula congress (corona) 09.-12.09.2020 in Brazil

In: Brazilian Oral Research

Braga, Aline S., Fernanda P.S.R de Melo, Dr. Leonardo L. Saldanha, Anne L. Dokkedal, Tobias Meißner, Maximilian Bemann, Ellen Schulz-Kornas, Rainer Haak, **Georg Conrads**, Ana Carolina Magalhães, and Marcella Esteves-Oliveira

Karieshemmende Wirkung von Pflanzenextrakten aus *Vochysia tucanorum*, *Myrica bella*, *Matricaria chamomilla* and *Malva sylvestris*

4. Gemeinschaftstagung der DGZ und der DGET mit der DGPZM und der DGR²Z; 26. – 28.11.2020; Dresden: HAUPTKONGRESS am 27./28.11.2020

Conrads, G.

Das orale Mikrobiom und seine Virulenzfaktoren

28. Jahrestagung der NAgP e.v. (Neue Arbeitsgruppe Parodontologie)

26.09.2020 (virtuell)

2019 Peer-reviewed publications

Clever, K., K. A. Schlegel, H. Kniha, **G. Conrads**, L. Rink, A. Modabber, F. Hölzle, and K. Kniha. Experimental peri-implant mucositis around titanium and zirconia implants in comparison to a natural tooth: **part 1**-host derived immunological parameters. *International Journal of Oral & Maxillofacial Surgery*, 2019 Apr;48(4):554-559.

Clever, K., K. A. Schlegel, H. Kniha, **G. Conrads**, L. Rink, A. Modabber, F. Hölzle, and K. Kniha. Experimental peri-implant mucositis around titanium and zirconium implants in comparison to a natural tooth: **part 2**-clinical and microbiological parameters. *International Journal of Oral & Maxillofacial Surgery*, 2019 Apr;48(4):560-565.

Hetrodt, F., J. Lausch, H. Meyer-Lückel, **G. Conrads**, and C. Apel, Evaluation of restorative materials containing preventive additives in a secondary caries model in vitro *Caries Research*, 2019 Feb 20:1-10. doi: 10.1159/000496401. **Oral-B-goldprize 2018, Deutsche**

Gesellschaft für Kinderzahnheilkunde. Beste Dissertation in der Kategorie Zahnmedizin 2020

Hetrodt, F., J. Lausch, H. Meyer-Lückel, **G. Conrads**, and C. Apel, Einfluss von Carolactonhaltigen Füllungsmaterialien auf die Entstehung einer Sekundärkaries in vitro. *Oralprophylaxe und Kinderzahnheilkunde* 41, 2019 (1) Seiten 44-45.

Conrads, G., J. Westenberger, M. Lürkens, M. M.H. Abdelbary. Isolation and bacteriocin-related typing of *Streptococcus dentisani*. *Frontiers in Cellular and Infection Microbiology* 2019 Apr 16;9:110. doi: 10.3389/fcimb.2019.00110. eCollection 2019.

Conrads, G., L. Wendt, F. Hetrodt, Z.-L. Deng, D. Pieper, MMH Abdelbary, A. Barg, I Wagner-Döbler, and C. Apel. Deep sequencing of biofilm microbiomes on dental composite materials. *Journal of Oral Microbiology*, 2019 May 14;11(1):1617013. doi: 10.1080/20002297.2019.1617013. eCollection 2019.

Conrads, G. and MHH Abdelbary, Challenges of next-generation sequencing targeting anaerobes, *Anaerobe*. 2019 Feb 12. pii: S1075-9964(19)30029-0. doi: 10.1016/j.anaerobe.2019.02.006. [Epub ahead of print].

2019 Book Chapter

G. Conrads, E. Nagy, and E. Könönen, *Bacteroides, Porphyromonas, Prevotella, Fusobacteria*, and other anaerobic Gram-negative rods, In: *Manual of Clinical Microbiology*, Edition 12, section II, chapter 56, pages 995-1023 (29 Seiten), (February 2019).

2019 Meeting abstracts

C. Walther, S. Zumbülte, C. M. Faerber, H. Meyer-Lueckel, G. Conrads, K. Henne, M. Esteves-Oliveira, Analysis of relative bacterial activity and *ldh*-gene expression of caries-associated bacteria in a site-specific natural biofilm, 66th. ORCA Congress (The European Organisation for Caries Research), session 1: Microbiology 03.-06. 07. 2019 in Cartagena, Colombia.

K. Kniha, H. Kniha, **G. Conrads**, L. Rink, K. Clever, A. Modabber, and F. Hölzle, Effect of inflammation on the soft tissue around titanium and zirconium implants in comparison to natural teeth, 28. Annual Meeting of the European Association for Osseointegration (EAO) 26.-28.09.2019 in Lisboa, Portugal

G. Conrads (discussion panel)

Tackling infectious diseases & antimicrobial resistance, European Research and Innovation days.

24.-26.09.2019 in Brussels, Belgium

2018 Peer-reviewed publications

Hetrodt, F., J. Lausch, H. Meyer-Lückel, C. Apel, and **G. Conrads**

Natural saliva as an adjuvant in a secondary caries model based on *Streptococcus mutans* *Archives in Oral Biology*, 2018, 90, 138–143. Impact: 2.050

Conrads, G., J. A. Bockwoldt, C. Kniebs, and M. M.H. Abdelbary

Commentary: Health-associated niche inhabitants as oral probiotics: the case of *Streptococcus dentisani*

Frontiers in Microbiology, 2018 | <https://doi.org/10.3389/fmicb.2018.00340> Impact: 4.019

Henne, K., H. Schilling, M. Stoneking, G. Conrads, and H.-P. Horz

Sex-specific differences in the occurrence of *Fusobacterium nucleatum* subspecies and *Fusobacterium periodonticum* in the oral cavity

Oncotarget, 2018, Vol. 9, (No. 29), pp: 20631-20639. Impact: 5.168

Walther, C., H. Meyer-Lückel, **G. Conrads**, M. Esteves-Oliveira, and **K. Henne**
Correlation between relative bacterial activity and lactate dehydrogenase expression of co-cultures in vitro
Clinical Oral Investigations, 2018 Jul 6. doi: 10.1007/s00784-018-2547-2. Impact: 2.386

Conrads G. and I. About
Pathophysiology of Dental caries
Monogr Oral Sci. 2018;27:1-10. RG Journal Impact: 4.89

Clever, K., K. A. Schlegel, H. Kniha, **G. Conrads**, L. Rink, A. Modabber, F. Hölzle, and K. Kniha
Experimental peri-implant mucositis around titanium and zirconium implants in comparison to a natural tooth – Part 1
International Journal of Oral & Maxillofacial Surgery, in press, Impact: 2.164

Clever, K., K. A. Schlegel, H. Kniha, **G. Conrads**, L. Rink, A. Modabber, F. Hölzle, and K. Kniha
Experimental peri-implant mucositis around titanium and zirconium implants in comparison to a natural tooth – Part 2
International Journal of Oral & Maxillofacial Surgery, in press, Impact: 2.164

2018 Meeting abstracts

G. Conrads and M.M.H Abdelbary (V)
Challenges of Next-Generation-Sequencing Targeting Anaerobes
In: Abstract book “2018 Anaerobe Las Vegas” SVIII-1 (page 32)
The 14th Biennial Congress of the Anaerobe Society of the Americas
09.07.-12.07.2018 in Las Vegas, Nevada, USA

K. Henne, H. Schilling, M. Stoneking, **G. Conrads**, and H.-P. Horz (P)
Sex-specific differences in the incidence of *Fusobacterium nucleatum* subspecies in the oral cavity
In: Abstract book “2018 Anaerobe Las Vegas” PI-8 (page 116)
The 14th Biennial Congress of the Anaerobe Society of the Americas
09.07.-12.07.2018 in Las Vegas, Nevada, USA

M.M.H Abdelbary and G. Conrads (P)
Evaluation of commonly used primers targeting 16S rRNA genes in next-generation sequencing (NGS) based studies.
In: Abstract book “2018 Anaerobe Las Vegas” PI-38 (page 148)
The 14th Biennial Congress of the Anaerobe Society of the Americas
09.07.-12.07.2018 in Las Vegas, Nevada, USA

2017 Peer-reviewed publications

Kather, M., **M. Skischus**, P. Kandt, A. Pich*, **G. Conrads***, S. Neuss-Stein*
*shared authorship
Functional isoeugenol modified-nanogel coatings for design of biointerfaces
Angew Chem Int Ed Engl. 2017 Feb 20;56(9):2497-2502. doi: 10.1002/anie.201609180.

Kather, M., **M. Skischus**, P. Kandt, A. Pich*, **G. Conrads***, S. Neuss-Stein*
*geteilte Autorenschaft
Funktionelle Isoeugenol modifizierte Nanogel-Beschichtungen für Biologische Grenzflächen

Angewandte Chemie, Communication – 2017 (Übersetzung zu engl. Artikel, separat erschienen)

Preshaw Ph., **K. Henne**, J.J. Taylol, R.A. Valentine, and **G. Conrads**
Age-related changes in immune function (immune senescence) in caries and periodontal diseases: a systematic review
J Clin Periodontol. 2017 Mar;44 Suppl 18:S153-S177. doi: 10.1111/jcpe.12675.

M.S. Tonetti, S. Paris, P. Bottenberg, **G. Conrads**, P. Eickholz, P. Heasman, M.-Ch. Huysmans, R. Lopez, Ph. Madianos, F. Müller, I. Needleman, B. Nyvad, Ph. Preshaw, I. Pretty, St. Renvert, F. Schwendicke, L. Trombelli, G.- J. van der Putten, J. Vannobergen, N. West, and A. Young
Dental caries and periodontal diseases in the ageing population: call to action to protect and enhance oral health and wellbeing as essential component of healthy aging. Consensus report of group 4 of the joint EFP/ORCA workshop on the boundaries between caries and periodontal diseases.
J Clin Periodontol. 2017 Mar;44 Suppl 18:S135-S144. doi: 10.1111/jcpe.12681.

Conrads G., S. Barth, M. Möckel, L. Lenz, M. van der Linden, and **K. Henne**
Streptococcus tigurinus is frequent among gtfR-negative *S. oralis* endocarditis-isolates and in oral samples of healthy adults but highly virulent strains are uncommon
Journal of Oral Microbiology, 2017 Apr 20;9(1):1307079.

Bergs Ch., L. Brück, R. R. Rosencrantz, **G. Conrads**, L. Elling, and A. Pich
Biofunctionalized zinc peroxide (ZnO₂) nanoparticles as active oxygen source and antibacterial agents
RSC Advances 2017, 7, 38998-39010.

2017 Meeting abstracts

Conrads G., S. Barth, M. Möckel, L. Lenz, M. van der Linden, and **K. Henne** (P, eP and V)
Streptococcus tigurinus is frequent among gtfR-negative *S. oralis* endocarditis-isolates and in oral samples of healthy adults but highly virulent strains are uncommon
5th. Joint Conference of the German Society for Hygiene and Microbiology (DGHM) and the Association for General and Applied Microbiology (VAAM).
In: BIOSpektrum Sonderausgabe 2017, ISSN 0947-0867, Seite 290-291
05-08 March 2017 in Würzburg, Germany.

Hetrodt, J. Lausch, H. Meyer-Lueckel, **G. Conrads** and C. Apel, (P and V).
Influence of Carolacton-containing composite materials on the development of secondary caries in vitro
In: Caries Research 2017
64th. ORCA Congress (The European Organisation for Caries Research), session 1: Microbiology
05.-06. 07. 2017 in Oslo, Norway

C. Walther, H. Meyer-Lueckel, **G. Conrads**, M. Esteves-Oliveira and **K. Henne** (P and V)
Correlation between relative bacterial activity and sucrose-related H⁺-concentration of *Lactobacillus paracasei* and *Fusobacterium nucleatum*
In Caries Research 2017
64th. ORCA Congress (The European Organisation for Caries Research), session 1: Microbiology
05.-06. 07. 2017 in Oslo, Norway

Die Arbeit hat zudem zum Gewinn des Oral-B-Preises, 2. Platz, 2017 geführt.

Kather, M., **M. Skischus**, P. Kandt, A. Pich*, S. Neuss-Stein and **G. Conrads** (V)
Functional isoeugenol-modified-nanogel coatings for implants

In: Journal of Oral Microbiology, 2017, Suppl. 1325239
12. European Oral Microbiology Workshop, 25.-28. May 2017 in Stockholm, Sweden.

M. Teichmann, K. Groß, M. Rückbeil, **G. Conrads**, S. Wolfart (P)
Einzelzahnimplantate mit Lithium-Disilikat-Suprakonstruktionen: Risikofaktoren für den bakteriellen Befall nach 1 Jahr in Funktion
In: 31. Kongress der Deutschen Gesellschaft für Implantologie
30.11.-02.12.2017 in Düsseldorf

Conrads, G (invited speaker)

Bioactive NanoCoat - Controlling biofilm by functional coatings
SFB 1027 seminar, invited by Prof. Hannig
20.06.2017 in Homburg

2016 Peer-reviewed publications

Functional isoeugenol modified-nanogel coatings for design of biointerfaces
Kather, M., M. Skischus, P. Kandt, A. Pich*, **G. Conrads***, S. Neuss-Stein*
***shared authorship**

Angewandte Chemie International Edition, Communication – accepted 11-2016

Gutknecht N., T. Sardar Al-Karadaghi, M. Abbood Al-Maliky, **G. Conrads**, and R. Franzen.
The effectiveness of 2780 nm and 940 nm laser irradiation on *Enterococcus faecalis* in bovine root dentin slices of different thicknesses.
Photomedicine and Laser Surgery, 34, 1 (2016)

Falkenstein S., J.M. Stein, K. Henne, and **G. Conrads**.
Trends in antibiotic use and microbial diagnostics in periodontal treatment: comparing surveys of German dentists in a ten-year period.
Clinical Oral Investigations, 20(8), 2203-2210 (2016).

Henne K., A-P Gunesch, C. Walther, H. Meyer-Lückel, **G. Conrads**, and M Esteves-Oliveira
Analysis of bacterial activity in sound and cariogenic biofilm. A pilot in vivo study
Caries research, 2016 Sep 6;50(5):480-488.

2016 Meeting abstracts

E. Lange, B. Melzer-Krick, K. Henne, and **G. Conrads (P)**
Testing an antioxidants-rich medium to grow oral anaerobes aerobically
In: Abstract book "2016 Anaerobe Nashville" PII-16 (page 155)
The 13th Biennial Congress of the Anaerobe Society of the Americas (ASA)
11.07.-14.07.2016 in Nashville, Tennessee, USA

J. Tyralla, K. Henne, S. Neuss-Stein, and G. Conrads (P and V).
Anti-SM monoclonal antibodies: production and applications
In Caries Research 2016; 50: page 10; DOI: 10.1159/000445087
63th. ORCA Congress (The European Organisation for Caries Research), session 1:
Microbiology
06.-09. 07. 2016 in Athens, Greek.

F. Hetrodt, J. Lausch, H. Meyer-Lueckel, C. Apel, and G. Conrads (P).
Model parameters for caries initiation adjacent to composite by a *Streptococcus mutans* biofilm
In Caries Research 2016; 50: page 34; DOI: 10.1159/000445087

63th. ORCA Congress (The European Organisation for Caries Research), session 1: Microbiology
06.-09. 07. 2016 in Athens, Greek.

Henne, K., Z. Shukoor, H. Meyer-Lückel, **G. Conrads**, und R.J. Wierichs (**P**)
Pilotstudie zum Effekt von (Alkali-)Metallfluoriden auf das Biofilm-Wachstum von *Streptococcus mutans* und *Lactobacillus paracasei*
30. Jahrestg. der Deutschen Gesellschaft für Zahnerhaltung (DGZ), 06.-08.10.2016 in Leipzig.

G. Conrads and H.-P. Horz (**V**)
Relationship between methanogenic archaea and subgingival microbial complexes in human periodontitis.
The 13th Biennial Congress of the Anaerobe Society of the Americas
11.07.-14.07.2016 in Nashville, Tennessee, USA

Conrads, G (Invited speaker, faculty member)
Molecular genetic methods in diagnostics of anaerobes
ESCMID Postgraduate Technical Workshop: Anaerobic Bacteria: Next Generation
Sequencing Technology meets Anaerobic Diagnostics.
26.-28.09.2016 at the University Medical Center Groningen (UMCG), The Netherlands

Conrads, G AND 19 co-authors (invited as reviewer and expert immunology)
Working group 4: Age-related effects on oral health, dental caries and periodontal diseases
The boundaries between caries and periodontal diseases
XIII EFP Workshop jointly by ORCA
06.-09.11.2016 in Madrid (La Granja), Spain.

F. Hetrodt, J. Lausch, C. Apel, und **G. Conrads (V)**
Untersuchung der Sekundärkaries im Streptococcus-mutans-Biofilmmodell *in vitro*
48. Jahrestagung des Arbeitskreises Grundlagenforschung in der Zahnmedizin (AfG)
07.-08.01.2016 in Mainz

K. Henne, S. Kruth, J. M. Stein, und **G. Conrads (V)**
Campylobacter-Spezies Proportionen spiegeln die mikrobielle Gemeinschaft im Verlauf einer Parodontitis
48. Jahrestagung des Arbeitskreises Grundlagenforschung in der Zahnmedizin (AfG)
07.-08.01.2016 in Mainz

S. Falkenstein, J. Stein, k. Henne, and **G. Conrads (P)**.
Mikrobiologische Diagnostik und Antibiotikaeinsatz in der Parodontitistherapie - eine Umfrage unter deutschen Zahnärzten.
DG PARO Jahrestagung 2016, 15.-17.09.2016 in Würzburg

2015 Peer-reviewed publications

Conrads G. Oral Anaerobes in Health and Disease.
Anaerobe. 2015 Oct;35(Pt A):1-2. (2015).

Horz H.P., N. Robertz, M.E. Vianna, K. Henne, and **G. Conrads.**
Relationship between methanogenic archaea and subgingival microbial complexes in human periodontitis.
Anaerobe. 2015 Oct;35(Pt A):10-2. (2015).

Henne K., A. Rheinberg, B. Melzer-Krick, and **G. Conrads.**

Aciduric microbial taxa including *Scardovia wiggisiae* and *Bifidobacterium* spp. in caries and caries free subjects.

Anaerobe. 2015 Oct;35(Pt A):60-5. (2015).

E. Könönen, **G. Conrads**, and E. Nagy

Bacteroides, *Porphyromonas*, *Prevotella*, *Fusobacteria*, and other anaerobic Gram-negative rods

Bookchapter in: Manual of Clinical Microbiology, Edition 11, section II, chapter 54, pages 967-993 (26 Seiten), (June 2015).

2015 Meeting abstracts

K. Henne, A. Gunesch, M. Esteves-Oliveira, C. Walther, and **G. Conrads (P)**.

Metabolic activity of selected acidogenic bacteria reflects caries activity

In: International Journal of Medical Microbiology.

67. Jahrestg. der Deutschen Gesellschaft für Hygiene und Mikrobiologie (DGHM), 27.-30.09.2015 in Münster.

K. Henne, S. Barth, M. van der Linden, and **G. Conrads (P)**.

Streptococcus tigurinus – a distinct species or a pathotype of *S. oralis*?

In: International Journal of Medical Microbiology.

67. Jahrestg. der Deutschen Gesellschaft für Hygiene und Mikrobiologie (DGHM), Münster,), 27.-30.09.2015 in Münster.

Skischus, M, M. Kather, R. Schröder, P. Kandt, S. Neuss-Stein, A. Pich & **G. Conrads (P)**

Nanogels as implant coatings preventing colonization with *Porphyromonas gingivalis*

2nd International Conference on *Porphyromonas gingivalis* and related species in oral and systemic infections, PgLondon2015

23rd-25th06.2015 in London, UK

2014 Peer-reviewed publications

Küpper T, M. Hettlich, HP Horz, K. Lechner, C. Scharfenberg, **G. Conrads**, S.S. Yekta, F. Lampert, C. Gore.

Dental Problems and Emergencies of Trekkers-Epidemiology and Prevention. Results of the ADEMED Expedition 2008.

High Altitude Medicine and Biology 2014, 15(1), 39-45.

Henne K, J. Li, M. Stoneking, O. Kessler, H. Schilling, A. Sonanini, **G. Conrads**, and HP Horz.

Global analysis of saliva as a source of bacterial genes for insights into human population structure and migration studies.

BMC Evolutionary Biology 2014, 14:190.

Henne K, F. Fuchs, S. Kruth, H.-P. Horz, and **G. Conrads**.

Shifts in *Campylobacter* species abundance may reflect general microbial community shifts in periodontitis progression.

Journal of Oral Microbiology. 2014, 6: 25874 (in press).

Conrads G, J.J. de Soet, L. Song, K. Henne, H. Sztajer, I. Wagner-Döbler, and A.-P. Zeng. Comparing the cariogenic species *Streptococcus sobrinus* and *S. mutans* on whole genome level.

Journal of Oral Microbiology. 2014, 6: 25875.

2014 Meeting abstracts

G. Conrads, Anke Rheinberg, Lifu Song, Wei Wang, Michael Reck, Irene Wagner-Döbler, and An-Ping Zeng **(V)**.

Comparing *Streptococcus mutans* and *S. sobrinus* on whole-genome level

In: Abstract book of the EOMWAarhus 2014 (abstract No. 12, page 28)*

11. European Oral Microbiology Workshop, 22.-25. May 2014 in Aarhus, Denmark.

K. Henne, F. Fuchs, and **G. Conrads (V)**.

Abundance shifts of species within the *Campylobacter* genus may display general community shifts in periodontitis progression

In: Abstract book of the EOMWAarhus 2014 (abstract No. 15, page 32)*

11. European Oral Microbiology Workshop, 22.-25. May 2014 in Aarhus, Denmark.

A. Rheinberg, **K. Henne**, B. Melzer-Krick, and **G. Conrads (P)**.

Scardovia wiggsiae and *Bifidobacterium dentium* in caries versus health associated oral biofilm.

In: Abstract book of the EOMWAarhus 2014 (abstract No. 52, page 71)*

11. European Oral Microbiology Workshop, 22.-25. May 2014 in Aarhus, Denmark.

Apel Ch., A. Barg, A. Rheinberg, I. Wagner-Döbler, and **G. Conrads (P)**. Carolacton inhibit biofilm growth of *Streptococcus mutans* and can be incorporated into dental composite materials.

In: Abstract book of the EOMWAarhus 2014 (abstract No. 55, page 74)*

11. European Oral Microbiology Workshop, 22.-25. May 2014 in Aarhus, Denmark.

*see: eomwaarhus2014.au.dk/fileadmin/EOMWAarhus2014/ABSTRACTS_EOMW2014_Web.pdf

K. Henne and Conrads, G (P)

Clinical significance of oral *Campylobacter*

In: Abstract book (PI-27) of

The 12th Biennial Congress of the Anaerobe Society of the Americas

28.06.-01.07.2014 in Chicago, Illinois, USA

S. Latz, **Henne K**, M. Kiesow, M. Stoneking, J. Li, **G. Conrads**, and H.P Horz **(V)**.

The oral microbiome as a source of bacterial genes for insights into human population structure.

4th. Joint Conference of the German Society for Hygiene and Microbiology (DGHM) and the Association for General and Applied Microbiology (VAAM).

In: Biospektrum (ISSN 0947-0867), spezial edition 2014, abstract PWV02, page 145.

05-08 October 2014 in Dresden, Germany.

Conrads, G (invited speaker)

Oral Anaerobes in Health and Disease: 2014 Highlights

The 12th Biennial Congress of the Anaerobe Society of the Americas

28.06.-01.07.2014 in Chicago, Illinois, USA

Conrads, G (Invited speaker)

Value of molecular genetic methods in diagnostics of anaerobes

ESCMID Postgraduate Technical Workshop: Anaerobic Bacteria: Next Generation

Sequencing Technology meets Anaerobic Diagnostics.

29.-09.-01.10.2014 at the University Medical Center Groningen (UMCG), The Netherlands

Wagner-Döbler, I. and the e.biofilm consortium (incl. **G. Conrads (V)**)

Fighting biofilm of streptococci by a new biofilm inhibitor: from bench to dental products

E:bio Statusseminar

22.-23.09.2014 in Berlin

2014 Book Chapter

E. Könönen, **G. Conrads**, and E. Nagy

Bacteroides, Porphyromonas, Prevotella, Fusobacteria, and other anaerobic Gram-negative rods. In: **Manual of Clinical Microbiology**, Edition 11, Chapter 54, in press.

2013 Peer-reviewed publications

Rheinberg, A., I.J. Swierzy, T.D. Nguyen, H.P. Horz, and **G. Conrads**

Cryptic *Streptococcus mutans* 5.6-kb plasmids encode a toxin-antitoxin system for plasmid stabilization.

Journal of Oral Microbiology 2013, **5**: 19729 - <http://dx.doi.org/10.3402/jom.v5i0.19729>.

Song L., W. Wang, **G. Conrads**, A. Rheinberg, M. Reck, I. Wagner-Döbler, A.-P. Zeng. Genetic variability of mutans streptococci revealed by wide whole-genome sequencing. **BMC Genomics**, 2013 Jun 28;14:430. doi: 10.1186/1471-2164-14-430.

Song L., W. Wang, **G. Conrads**, A. Rheinberg, M. Reck, I. Wagner-Döbler, A.-P. Zeng. Correction: Genetic variability of mutans streptococci revealed by wide whole-genome sequencing.

BMC Genomics. 2013 Dec 16;14:811. doi: 10.1186/1471-2164-14-811

Apel Ch., A. Barg, A. Rheinberg, **G. Conrads**, I. Wagner-Döbler.

Dental composite materials containing carolacton inhibit biofilm growth of *Streptococcus mutans*.

Dental Materials, 2013 Nov;29(11):1188-99. doi: 10.1016/j.dental.2013.09.005.

Li J, I. Nasidze, D. Quinque, M. Li, **H.P. Horz**, C. André, R. M. Garriga, M. Halbwax, A. Fischer, M. Stoneking.

The saliva microbiome of Pan and Homo

BMC Microbiol. 2013 Sep 11;13:204. doi: 10.1186/1471-2180-13-204.

Henne, K., L. Kahlisch, M. G. Höfle, I Brettar

Seasonal dynamics of bacterial community structure and composition in cold and hot drinking water derived from surface water reservoirs.

Water Res. 2013 Oct 1;47(15):5614-30. doi: 10.1016/j.watres.2013.06.034. Epub 2013 Jun 29.

2013 Meeting abstracts

Apel Ch., A. Barg, **A. Rheinberg**, **G. Conrads**, I. Wagner-Döbler (**P**).

Carolacton incorporated into dental composite materials inhibits biofilm of *Streptococcus mutans*.

In : Caries Research 2013; 47; 433-531.

60th. ORCA Congress (The European Organisation for Caries Research), session 1:

Microbiology

03.-06. 07. 2013 in Liverpool, UK.

K. Henne, **S. Latz**, H. Schilling, M. Stoneking, J. Li, **G. Conrads**, and **H.-P. Horz (V)**.

Comparative analysis of intra-species diversity within oral microbiomes and its potential for studying human migration patterns.

In: International Journal of Medical Microbiology. Vol. 303S1, Abstract PWV06, page 99.

65. Jahrestg. der Deutschen Gesellschaft für Hygiene und Mikrobiologie (DGHM), Rostock, 2013.

K. M. Mikos, K. Henne, F. M. Fuchs, H.-P. Horz, and G. Conrads (P).

Approach for the detection of hitherto overlooked *Campylobacterales* exemplified by oral specimens.

In: International Journal of Medical Microbiology. Vol. 303S1, Abstract DVP09, page 8.
65. Jahrestg. der Deutschen Gesellschaft für Hygiene und Mikrobiologie (DGHM), Rostock, 2013. **Gewinner des DGHM/DGI Posterpreises 2013.**

A. Rheinberg, L. Song, W. Wang, M. Reck, I. Wagner-Döbler, A.-P. Zeng, G. Conrads (P).
Key differences in the metabolom between *Streptococcus mutans* and *S. sobrinus* as determined by whole-genome comparison of multiple strains.

In: International Journal of Medical Microbiology. Vol. 303S1, Abstract MPP01, page 49.
65. Jahrestg. der Deutschen Gesellschaft für Hygiene und Mikrobiologie (DGHM), Rostock, 2013.

S. Latz, K. Henne, M. J. Kiesow, M. Stoneking, J. Li, G. Conrads, and H.-P. Horz (P).

Deep barcode amplicon sequencing of the glucosyltransferase gene *gtfP* reveals a geographic signature and the world wide diversity of *Streptococcus sanguinis*.

In: International Journal of Medical Microbiology. Vol. 303S1, Abstract PWP03, page 95.
65. Jahrestg. der Deutschen Gesellschaft für Hygiene und Mikrobiologie (DGHM), Rostock, 2013.

A. Rheinberg, I. J. Swierzy, T. D. Nguyen, H.-P. Horz, and G. Conrads (P).

Streptococcus mutans 5.6kb plasmids encode a Toxin-Antitoxin system for plasmid stabilization and possibly enhancing fitness.

In: International Journal of Medical Microbiology. Vol. 303S1, Abstract PWP06, page 96.
65. Jahrestg. der Deutschen Gesellschaft für Hygiene und Mikrobiologie (DGHM), Rostock, 2013.

A. Rheinberg, K. Henne, H. Meyer-Lückel, and G. Conrads (P).

Detection of *Scardovia wiggsiae* and *Bifidobacterium dentium* in caries lesions – a pilot study.

In: International Journal of Medical Microbiology. Vol. 303S1, Abstract PWP07, page 96.
65. Jahrestg. der Deutschen Gesellschaft für Hygiene und Mikrobiologie (DGHM), Rostock, 2013.

2012 Peer-reviewed publications

H.-P. Horz, I. Seyfarth, and G. Conrads. 2012. McrA and 16SrRNA gene analysis suggests a novel lineage of Archaea phylogenetically affiliated with Thermoplasmatales in human subgingival plaque. *Anaerobe*. 18: 373--377.

H.-P. Horz, A. Ten Haaf, O. Kessler, S. Said Yekta, I. Seyfarth, M. Hettlich, F. Lampert, T. Küpper, and G. Conrads. 2012. T-RFLP-based differences in oral microbial communities as risk factor for development of oral disease under stress. *Environ. Microbiol Rep*. 4: 390--397.

A. Krüttgen, H.-P. Horz, J. Weber-Heynemann, M. Vucur, C. Trautwein, G. Haase, T. Lüdde and C. Roderburg. 2012. Study on the association of Helicobacter species with viral hepatitis induced hepatocellular carcinoma. *Gut Microbes* Volume 3, Issue 3 May/June 2012 Online: <http://www.landesbioscience.com/journals/gutmicrobes/article/19922/>.

Song, L., P Sudhakar, W. Wang, G. Conrads, A. Brock, J. Sun, I. Wagner-Döbler, A.-P. Zeng. 2012. A genome wide study of two-component signal transduction systems in eight newly sequences mutans streptococci strains. *BMC Genomics*; 13, 128-148, 2012.

Book chapter

M. C. Claros and G. Conrads, Oral and Intestinal Bacteroidetes, Chapter 7 (20 Seiten), In: I. de Filippis and M.L. McKee (Eds.): Molecular Typing in Bacterial Infections; Springer Science+Business Media New York (online: ISBN 1-62703-185-1; print: ISBN 1-62703-184-4), pages 87-206, first release November 2012.

Meeting abstracts

H.-P. Horz (V) Application of Unifrac and related bioinformatic tools to assess intra-species diversity within oral microbiomes in an anthropological context. 14th International Symposium on Microbial Ecology (ISME-14), Session CT30; Abstract Book Page 56; 19.08.-24.08.2012 in Copenhagen, Denmark.

H.-P. Horz, I. Seyfarth, G. Conrads, (P) Rarity and diversity of human-associated Archaea revisited - evidence of uncultured organisms related to Thermoplasmatales in human periodontal biofilms. 14th International Symposium on Microbial Ecology (ISME-14), Session PS 18; Abstract Book Page 118; 19.08.-24.08.2012 in Copenhagen, Denmark.

H.-P. Horz, H. Schilling, O. Kessler, M. Stoneking, J. Li, and G. Conrads, (P) Clonal diversity and geographic signatures of human oral bacterial strains on a world-wide scale. Jahrestagung der VAAM 2012, Tübingen. In: Biospektrum, Tagungsband 2012 Abstract HMP010, page 88.

H.-P Horz, Stoneking, M., Li, J, Kessler, O., Sonanini, A, Schilling, H, and Conrads, G (V). Geographic signatures of anaerobes to study human-microbe co-migration and co-evolution. Anaerobe 2012, Anaerobe Society of the Americas. In: Abstract book. 29.06.-01.07.2012 in San Francisco, CA, USA.

H.-P. Horz, T. Küpper, M. Hettlich, A. Ten-Haaf, I. Seyfarth, S. Said Yekta, and G. Conrads, (P)
The risk for developing oral inflammation under stress is possibly predictable by analysing the preformed oral anaerobic flora. Anaerobe 2012, Anaerobe Society of the Americas. In: Abstract book. 29.06.-01.07.2012 in San Francisco, CA, USA.
