

## **Publications (selected publication)**

### **Peer reviewed publications**

Byamukama D., Kansiime, F., Mach, R.L. and Farnleitner, A.H. (2000): Determination of *Escherichia coli* contamination by chromocult coliform agar showed a high discrimination efficiency for differing fecal pollution levels in tropical waters of Kampala – Uganda. **Appl. Environ. Microbiol.** **66**:864-868.

Farnleitner, A.H., Kreuzinger, N., Kavka, G.G., Grillenberger, S., Rath, J. and Mach, R.L. (2000): Simultaneous detection and differentiation of *Escherichia coli* populations from environmental freshwaters by means of sequence variations in a fragment of the  $\beta$ -D-glucuronidase gene. **Appl. Environ. Microbiol.** **66**:1340-1346.

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Farnleitner, A.H., Hocke, L., Beiwl, C., Kavka, G.G., Zechmeister, T., Kirschner, A.K.T. and Mach, L.R. (2001): Rapid enzymatic detection of *Escherichia coli* contamination in polluted river water. **Lett. Appl. Microbiol.** **33**:246-250.

Farnleitner, A.H., Hocke, L., Beiwl, C., Kavka, G.G. and Mach, R.L. (2002): Hydrolysis of 4-methylumbelliferyl- $\beta$ -D-glucuronide in differing sample fractions of river waters and its implication for the detection of fecal pollution. **Water Research** **36**:975-981.

Farnleitner, A.H., Zibuschka, F., Burtscher, M.M, F, Lindner, G., Reischer., G. and Mach R.L.(2004): Eubacterial 16S-rDNA amplicon profiling: a rapid technique for comparison and differentiation of heterotrophic plate count communities from drinking water. **Int. J. Food. Microbiol.** **92**:333-345.

Kischner, A.KT., Zechmeister, T.C., Kavka, G.G., Beiwl, C., Herzig, A., Mach, R.L. and Farnleitner, A.H. (2004): Integral strategy to evaluate faecal indicator performance in bird influenced saline inland waters **Appl. Environ. Microbiol.** **70**:7396-7403.

Farnleitner, A.H\*, Byamukama\*, D, Kansiime, F., Manafi, M., Burtscher, M. and R.L. Mach (2005): Contrasting occurrence of *Chromobacter violaceum* in tropical drinking water springs of Uganda. **J. Water Health.** **3**:229-238.

Byamukama, D., Mach, R.L., Kansiime, F., Manafi, M. and A.H. Farnleitner. (2005): Efficiency of faecal pollution detection using presumptive coliforms, *Escherichia coli* and *Clostridium perfringens* enumeration techniques in different aquatic habitats at a high altitude tropical country. **Appl. Environ. Microbiol.** **71**:65-71.

Farnleitner, A.H., Wilhartitz, I., Kirschner, A.K.T., Stadler, H., Burtscher, M., Hornek, R., Szewzyk, U., Herndl, G. and R.L. Mach. (2005). Bacterial dynamics in spring water of two contrasting alpine karst aquifers indicate autochthonous microbial endokarst communities. **Environ. Microbiology** **7**:1248-1259.

Hornek, R., Pommerening-Röser, A., Koops, H.P., Farnleitner, A.H., Kreuzinger, N., Kirschner, A.K.T. and R.L. Mach. (2006): Primers containing universal bases reduce multiple *amoA* gene specific DGGE band patterns when analysing the diversity of beta - ammonia oxidizers in the environment. **J. Microbiol. Meth.** **66**:147-155.

Burtscher, M.M., Köllner, K., Sommer, R., Keiblanger, K., Farnleitner, A.H. and R.L. Mach. (2006) Development of a highly reproducible amplified fragment length polymorphism (AFLP) method for typing of *Enterococcus* spp. and application on isolates from cattle faeces in an alpine watershed. **J. Microbiol. Meth.** **66**:281-293.

Stricker, A.R., Wilhartitz I., Farnleitner, A.H. and R.L. Mach. (2007): Development of a Scorpion based real-time PCR for the sensitive quantification of *Bacteroides* sp. ribosomal DNA from human and cattle origin and evaluation in spring water matrices. **Microbiol. Res.** **163**:140-147.

Reischer, G.H., Kasper, D.C., Steinborn, R., Mach, R.L. and A.H. Farnleitner. (2006) Quantitative PCR method for sensitive detection of ruminant faecal pollution in freshwater and evaluation of this method in alpine karstic regions. **Appl. Environ. Microbiol.** **72**:5610-5614.

Winter, C., Hein, T., Kavka, G., Mach R.L. and A.H. Farnleitner. (2007): Longitudinal changes in the bacterial community composition of the Danube River: A whole river approach. **Appl. Environ. Microbiol.** **73**: 421-431.

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Stadler, H., Skritek, P., Sommer, R., Mach, R.L., Zerobin. W. and A.H. Farnleitner. (2008) Microbiological monitoring and automated event sampling at karst springs using LEO- satellites. **Wat. Sci. Technol.** **58** (4):899-909.

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Kirschner, AKT, Kavka, G., Velimirov, B., Mach, R. Sommer R. and A.H. Farnleitner. (2009) Microbiological water quality along a 2600 km longitudinal profile of the Danube River: Integrating data from two whole-river surveys and a transnational monitoring network. **Water Res.** **43**:3673-3684.

Mushi, D., Kivaisi, A.K., Mach R.L., and Byamukama, D. and Farnleitner, A.H. (2010) Sorbitol-fermenting bifidobacteria are indicators of very recent faecal pollution in streams and groundwater habitats in urban tropical lowland of Dar es Salaam, Tanzania. **Journal of Water and Health** **8**(3):466-478.

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Muhsi, D., Byamukama, D., Kirschner, A.K.T., Mach, R., Brunner, K. and Farnleitner, A.H. (2012) Sanitary inspection of wells using risk-of-contamination scoring shows a high predictive ability for bacterial faecal pollution in peri-urban tropical lowlands of Dar es Salaam, Tanzania. **Journal of Water and Health**. **10**: 236-243

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Schijven, J., Derx, J., De Roda Husman, A.M., Blaschke, A.P. & Farnleitner AH (2015) QMRAcatch - Microbial quality simulation of water resources including infection risk assessment. **Journal of Environmental Quality** **44**(5): 1491-1502

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## International Periodica

Aslan-Yilmaz, A., Warish, A., Farnleitner, A.H., Masago, Y., Taylor, H. and Rose, J. (2010) Towards a healthier water environment: the IC sewage collaboration. **Water** **21**: 44-46.

## **Book Articles**

Wuertz, S., Wang, D., Reischer G. & Farnleitner. A.H (2011) Microbial Source Tracking: Methods, Applications and Case Studies. Library Independent Bacterial Methods, in: Hagedorn, C., Haarwood, J., Blanch A. (ed.) **Springer – New York**, pp. 61-112.

Farnleitner A.H., G.H. Reischer, H. Stadler, D. Kollanur, R. Sommer, W. Zerobin, G. Blöschl, K.M. Barrella, J.A. Truesdale, E.A. Casarez and G.D. Di Giovanni (2011) Microbial Source Tracking: Methods, Applications and Case Studies. Agricultural and Rural Watersheds, in: Hagedorn, C., Haarwood, J., Blanch A. (ed.) **Springer – New York**, pp. 399-432.

Farnleitner AH & Reischer GH (2013) New Perspectives in Water Quality Testing; International Innovations. Issue: **Disseminating Science, Research and Technology in Health Partnership**; June 2013: pages 18-20; ISSN: 2051-8552; [www.researchmedia.eu](http://www.researchmedia.eu)

Kirschner, AKT, Kavka, G, Reischer, GH, Sommer, R, Blaschke, AP, Stevenson, M, Vierheilig, J., Mach RL & Farnleitner, AH (2015) Microbiological water quality of the River Danube: Status quo and future perspective. **Handbook of Environmental Chemistry** 39:439-468;

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