



Programme (19.02.2007)

Tuesday, 13.3.2007

15:00 Preregistration

18:00 Get-together at conferencesite

Wednesday, 14.3.2007

- 9:00 Opening of the conference (V. Hingst, President of LGL)
Greeting (L. Hope, World Health Organization)
Greeting (B. Liebl, Bavarian Ministry for Environment, Health and Consumer's Protection)
Greeting (C. Höller, German Scientific Committee for Swimming Pools)

Section A: Standards, guidelines and regulations

Chair: L. Bonadonna and M. Beach

- 9: 25 Invited presentation: **M. Kadar* and L. Hope, Hungary and WHO: WHO**
Guidelines for safe recreational water environment Vol. 2 - how practice reflects the principles
- 10:00 **P. Payment and A. Locas*, Canada:** Pool and spas regulations in Canada: public health aspects
- 10:25 **Coffee break**
- 10:45 **J. Ratajová and F. Kožíšek*, Czech Republic:** Regulatory public health requirements on special bathing courses for very young children (3 months to 3 years of age) in the Czech Republic
- 11:10 **M. Unterwainig* and R. Perfler, Austria:** Water use and hygiene risk management in hammams in the Mediterranean region
- 11:35 **S. Choe, R. Martin*, D. Purkiss and T. Bellahcene, USA:** Requirements for recreational water disinfection equipment

Section D: Monitoring and assessment

Chair: F. Frimmel and M. Kadar

- 12: 00 Invited presentation: **G. Nichols, U.K.:** Swimming pools and cryptosporidiosis

12:35 **G.-J. Tuschewitzki* and D. Eichler, Germany:** Quality of swimming pool water in Germany

13:00 **Lunch**

Section D: Monitoring and assessment (continued)

Chair: F. Frimmel and M. Kadar

14:00 **C. Zwiener*, T. Glauner and F. Frimmel, Germany:** Disinfection by-products in swimming pool water – Part I. What do we know and what should we know?

14:25 **T. Grummt*, R. Heinze and H.-G. Wunderlich, Germany:** Disinfection by-products in swimming pool water – Part II. Toxicological studies: What do we know and what should we know?

14:50 **L. Erdinger, Germany:** Comparison of permanganate index and TOC for the assessment of swimming pool water quality

15:15 **C. Neugebauer*, C. Janke, V. Albrecht, W. Kritzner and F. G. Reißmann, Germany:** Investigations into the dynamics of pool water quality

15:40 **Coffee break**

Section B: Microbial risks

Chair: C. Höller and G. Nichols

16:00 Invited presentation: **M. J. Beach*, S. L. Roy, J. S. Yoder, USA:** Microbiologic and chemical risks associated with use of man-made recreational water venues: Outbreak surveillance data from the United States

16:35 **J.M. Shields*, E. R. Gleim, M. J. Arrowood, V. R. Hill and M. J. Beach, USA:** US Centers of Disease Control and Prevention's Healthy Swimming Program: The effect of cyanuric acid on the chlorine disinfection rates of *Cryptosporidium parvum* and *Staphylococcus aureus* and the impact of adding a bodily fluid analog

17:00 **C. R. Hayes*, B. T. Croll, C. J. Wright, S. Williams and D. Rowlands, U.K.:** Optimisation of pool water treatment for *Cryptosporidium oocyst* removal

17:25 **D. Pekovic*, M.-N. Chou, Z. Zarkoic, P. Filteau and G. Tellier, Canada:** Microbial incidence in the water of 95 Montreal's public swimming pools during the summer 2006

Thursday, 15.3.2007

Section B: Microbial risks (continued)

Chair: F. Mascher

- 9:00 **W. Polak, Austria:** Biogenous deposits (biofilms) in warm water circuits; their effect and control in swimming pool and shower circuits
- 9:25 **F. Kožíšek* and J. Ratajová, Czech Republic:** Hygienic evaluation and health risk assessment of bathing in the floating tank

Section C: Chemical risks in air and water

Chair: C. Zwiener and E. Stottmeister

- 9:50 Invited presentation: **A. Bernard; Belgium:** Chemical risks in air and water
- 10:25 **Coffee break**
- 10:50 **C. M. Villanueva*, J. O. Grimalt, R. Marcos, D. DeMarini, L. Font and M. Kogevinas, Spain and USA:** Chlorinated compounds in swimming pools: measurement of genotoxic and respiratory effects
- 11:15 **M. Mata, A. M. Heitor and J. M. Rocha Nogueira*, Portugal:** Trihalomethanes formation in indoor swimming-pools of the district of Porto (Portugal)
- 11:40 **C. Lehr* and L. Erdinger, Germany:** Comparison of THM formation potential of different halogens in swimming pool water
- 12:05 **F. Gerardin*, G. Hécht, G. Hubert-Pelle and I. Subra, France:** UV process: chloroform and nitrogen trichloride level monitoring in indoor swimming pool waters
- 12:30 **Lunch**

Section C: Chemical risks in air and water (continued)

Chair: C. Zwiener and E. Stottmeister

- 14:00 **C. Voisin*, M. Nickmilder and A. Bernard, Belgium:** Risks of allergic and respiratory diseases associated with early swimming in indoor chlorinated pools
- 14:25 **A. Matos*, A.F. Pires, C. Barrieros, E. Duarte, P. Pacheco and S. Alves, Portugal:** Evaluation of the indoor air quality in swimming pools

Section E: Water treatment and disinfection

Chair: L. Erdinger and P. Kaas

- 14:50 Invited presentation: **W. Uhl, Germany:** Pool Water Treatment and Disinfection: Current practice and new developments
- 15:15 **M. G. A. Keuten*, L. L. M. Keltjens, D. Traksel and J. C. van Dijk, Netherlands:** Traditional and future pool water treatment in relation to DBP's
- 15:40 **Coffee break**

- 16:00 **F. Kretschmer*, G. Langergraber, R. Perfler, H. Goldschmid, C. Hellio, A. Toscano, C. Lems, A. van den Bogaert, T. Griessler Bulc, Austria, U.K., Italy, Netherlands, Slovenia:** The CHEM-Free swimming pool – Development of a new chemical-free water treatment system for swimming pools through integrating fibre filters, ultrasound and UV-C
- 16:25 **K. Hagen, Germany:** Ultrafiltration for swimming pool water treatment
- 16:50 **F. G. Reißmann*, C. Neugebauer, C. Janke, V. Albrecht and W. Kritzner, Germany:** Application of a combined membrane system for pool water treatment
- 17:15 **F. Frimmel*, T. Glauner, A. Klüpfel and C. Zwiener, Germany:** Emerging technologies for pool water treatment
- 17:40 **G. Csontos, Germany:** Concepts for the reduction of chemicals' input and energy saving in public swimming pools – EWO pool
- 19:30 **Conference dinner at Ratskeller, "Alte Käferei"**

Friday, 16.3.2007

Section E: Water treatment and disinfection (continued)

Chair: R. Ließfeld and F. Gerardin

- 9:00 **G. Gansloser, Germany:** Principles of pool hydraulics in case of reduced discharge
- 9:25 **P. Kaas* and H. Andersen, Denmark:** Photochemical and advanced RedOx treatment of pool water
- 9:50 **A. S. Duarte*, J. L. Vasconcelos and J. P. Vieira, Portugal:** Cost optimisation for disinfection method selection in municipal pools. A case study
- 10:15 **A. Jones, U. K.:** Calcium hypochlorite – alternative municipal and commercial pool disinfection
- 10:40 **Coffee break**

Section F: "Natural" pools and pools with biological treatment

Chair: E.-A. Heinemeyer

- 11:00 Invited presentation: **J. Lopez-Pila, Germany:** Is disinfection capacity in the pool water really necessary?
- 11:35 **F. Mascher*, F.P. Pichler Semmelrock, F. Reinthaler and E. Marth, Austria:** "Natural pools" – artificial small-scale ponds or pools without disinfection? The Austrian philosophy

12:00 **S. Bruns, Germany:** Natural and combined public outdoor pools in urban environments: The German open-air pools in Wetter on River Ruhr and Stadium Pool in Bremen

12:30 **End of Conference**

Poster

1. **L. Bonadonna* and G. Donati, Italy:** The Italian legislation on swimming pools
2. **L. Benaabidate*, O. Sadki and A. Zian, Morocco:** Characterization of a Moroccan spa: case of Moulay Yacoub
3. **M. Cadete*, F. Falcão, C. Silva, M.M. Barroso and M.L. Falcão, Portugal:** Swimming pools in the Lisboa and Vale do Tejo Region: The total counts of *Staphylococcus* makes the difference
4. **C. Kourtis*, N. Pissarides, K. Antoniou, M. Hadjiroussos and G. Papageorgiou, Cyprus:** Microbiological quality of swimming pool water in Cyprus
5. **P. Schindler*, L. Gerber and C. Höller, Germany:** Legionella in swimming pools
6. **L. Gerber*, P. Schindler and C. Höller, Germany:** Cryptosporidia in filter backwash water
7. **L. Bonadonna*, R. Briancesco and S. Della Libera, Italy:** Hygienic quality of Italian swimming pools and occurrence of protozoa
8. **M. Kramer, I. Hübner, K. Hagen and L. Erdinger, Germany:** Particle analysis in swimming pool water - particle concentration depends on water treatment technique, treatment performance and bathing load
9. **C. Schmalz*, F.H. Frimmel and C. Zwiener, Germany:** NCl₃ Formation in swimming pool water – chemical reactions and precursors
10. **G. Fantuzzi*, E. Righi, G. Predieri, P. Giacobazzi and G. Aggazotti, Italy:** Haloacetic acids (HAAs), bromate, chlorite, chlorate and trihalomethanes (THMs) determination in indoor pools
11. **M. Reis, Germany:** Different process modifications for the treatment of pool water with membranes