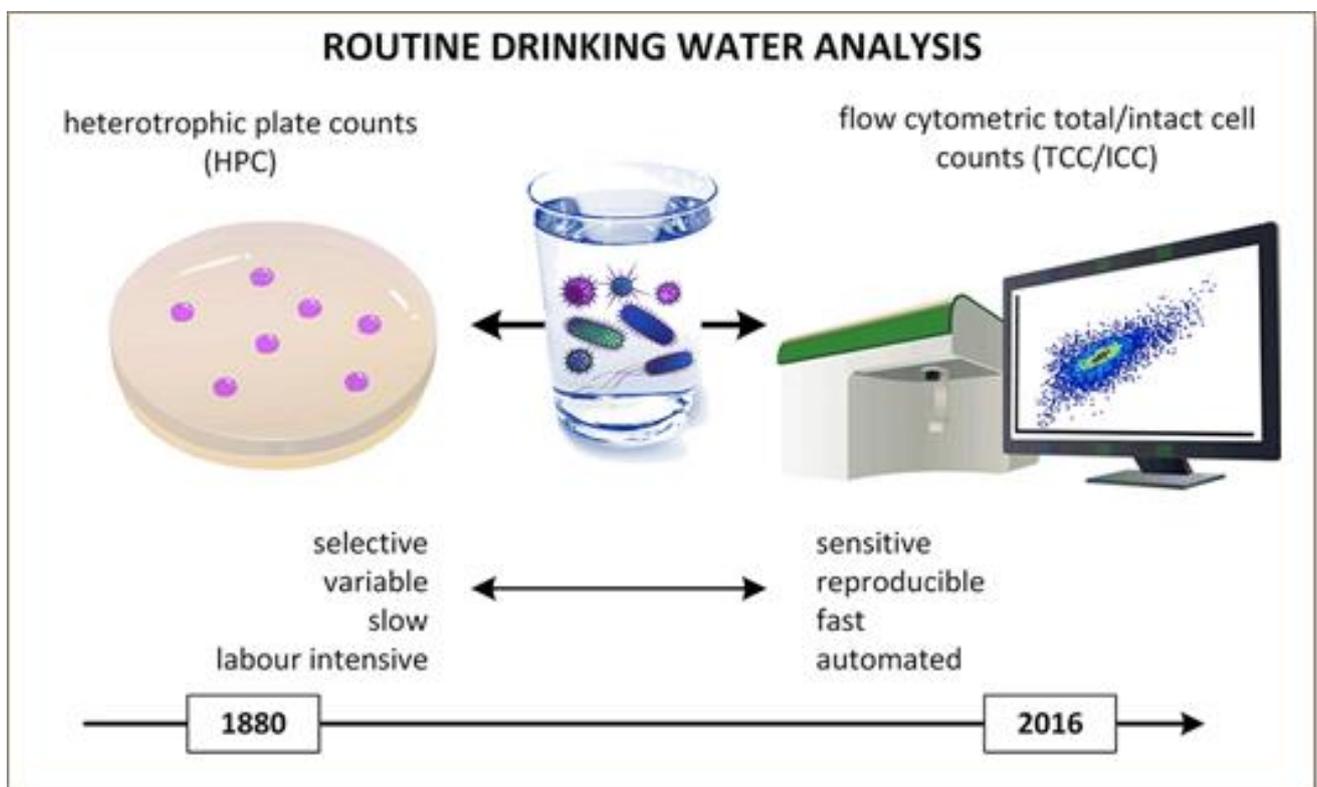


Flow cytometry for assessing the microbiology of drinking water - from source to tap

Tuesday, May 15th, 2018. Burlington House, Piccadilly, Mayfair, London W1J 0BD



Source: Flow cytometric bacterial cell counts challenge conventional heterotrophic plate counts for routine microbiological drinking water monitoring. S. Van Nevel, S. Koetzsch, C.R. Proctor, M.D. Besmer, E.I. Prest, J.S. Vrouwenvelder, A. Knezev, N. Boon, F. Hammes, *Water Research*, Volume 113, pp. 191-206, (2017)

Understanding the microbiological quality of drinking water supplies is essential to the protection of public health. Many viral, bacterial and protozoan pathogens are waterborne. Water treatment processes are designed to eliminate the risk of exposure, but it is essential to carry out regular testing of water at all points from source to tap to ensure the effectiveness of treatment. Until recently, laboratories testing for bacteria in drinking water have relied on relatively slow and labour-intensive culture based methods, an inherent weakness of which is that only a small proportion of bacterial species are amenable to culture using artificial media. Flow cytometry, with appropriate staining techniques, can provide fast information on total and intact bacterial cell counts, giving an early picture of the microbiological health of a water distribution system.

AGENDA (subject to confirmation)

09:30 Tea, Coffee & Registration

10.00 Introduction

Ian Barnabas/Simon Gillespie, Water Science Forum

10.10 Keynote: Theory, Background and Latest Developments

Dr Frederik Hammes, Eawag, Dubendorf, Switzerland

10.50 A UK regulatory perspective

Drinking Water Inspectorate

11:20 Tea & Coffee, exhibition and networking

11.40 Discrete and continuous on-site flow cytometry

Dr Michael Besmer, onCyt Microbiology, Zurich, Switzerland

12.10 Phage, failure and flow cytometry

Professor Tom Curtis, Newcastle University

12.40 - 13.30 Lunch, exhibition and networking

13.30 What flow cytometry sees that culture methods do not: applications from raw water to disinfection to distribution.

Dr Andreas Nocker, IWW Water Centre, Muelheim, Germany

14.00 Case studies: Scottish Water

14.30 Case studies: Northumbrian Water

15.00 Tea & Coffee, exhibition and networking

15.20 Case studies: Severn Trent Water

15.50 Case studies: United Utilities

16.20 Closing remarks

Ian Barnabas/Simon Gillespie, Water Science Forum

16.30 End

Objectives

For those who have not used the technique, this seminar will provide background, theory and applications of flow cytometry to the analysis of drinking water. For those familiar with the technique, the seminar and associated exhibition provide an opportunity to find out about the latest developments in laboratory based and on-line instrumentation, to hear from leading researchers in the area, and for knowledge exchange with other practitioners.

Who should attend

- Water industry personnel – analytical and operational scientists, water quality staff, laboratory managers.
- Suppliers and manufacturers of flow cytometry instrumentation
- Researchers concerned with the application of flow cytometry to water supplies
- Water engineers and consultants working for the water industry
- Regulators responsible for legislation relating to drinking water quality

For further information please visit RSC Conference and Events website:

<http://www.rsc.org/events?MemberNetwork=73&PageTitle=73>

For further information on the Water Science Forum membership and activities please see:

<http://www.rsc.org/Membership/Networking/InterestGroups/WaterScience/index.asp>

Or write to: Hon. Secretary, Water Science Forum, c/o The Royal Society of Chemistry, Burlington House, Piccadilly, London W1V 0BN

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Registered Charity Number 20789

REGISTRATION

Registration includes attendance at the speaker presentations during the morning and afternoon sessions, refreshments throughout the meeting and any exhibitor displays. Final booking deadline is May 9th, 2018. Please note places are limited for this popular event and early booking is advised.

Registration fees are as follows:

Full price: £195

Student/retired: £95

Exhibitors: A limited number of table top displays are available at £500 each.

Cancellation policy: Refunds can only be made if cancellations are notified at least 5 days in advance of the workshop date.

Online Registration:

Eventbrite – <https://www.eventbrite.co.uk/e/flow-cytometry-for-assessing-the-microbiology-of-drinking-water-tickets-41574646888>

Or by completing the following form, if you prefer to pay by cheque:

Please complete a separate form for each delegate. A £10 booking charge will apply if payment is not received with registration. Cheques payable to "RSC Water Science Forum".

Title (Dr, Mr, Mrs etc) First Name(s)

Surname Job Title

Organisation/Affiliation

Address

Post Code Telephone..... Mobile.....

Email

Do you have any special dietary or other needs? If so, please specify below:

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The completed form should be returned to the WSF Treasurer: Mr Jonathan Mace, Quality Manager, ALS Life Sciences Division, Environmental Unit 11, Silkwood Park, Janes Hill Wakefield WF5 9TG, email: jonathan.mace@ymail.com.

For all enquiries regarding the event please contact:

Simon Gillespie Telephone: 07802 526993, email: simongillespie@live.co.uk.