



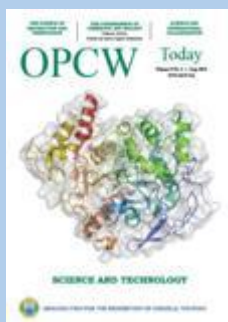
# The OPCW Science & Technology Monitor

A sampling of Science & Technology  
relevant to the Chemical Weapons Convention

1 September 2014

Volume 1, Number 1

New *OPCW Today* special issue on S&T now published  
Click [here](#) to read



## Featured Content:

Issue 21 of *Analytical & Bioanalytical Chemistry* edited by two senior OPCW analytical chemists from the laboratory. Articles are [available for free](#) until 15<sup>th</sup> January 2015.



## Upcoming S&T Related Events:

24 - 25 September  
4th meeting of the  
TWG on Education  
and Outreach

## Welcome

Welcome to our first issue of *The OPCW Science and Technology Monitor*, an occasional bulletin to provide updates on developments in science and technology across a wide spectrum of topics relevant to the CWC.

In this issue:

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## Sampling and Analysis

Topical collection of articles on chemical weapon analysis in [Analytical and Bioanalytical Chemistry](#) that was edited by two senior analytical chemists from the OPCW laboratory in Rijswijk. The collection of articles has been made freely available until 15<sup>th</sup> January.

A biosensor that stinks - Integrating chemistry and the human nose.  
[Overview article](#)  
[Peer-reviewed publication](#)

## The Convergence of Chemistry and Biology

The June 2014 [end-of-mandate report](#) from the TWG on the Convergence of Chemistry and Biology

As noted in the TWG's report, more than 10% of global chemical production is expected to come from biologically mediated processes by the year 2020. Some recent reviews on types of chemicals that can be produced, biotechnological advances, and current and future trends are provided here (pdf versions of the articles are available from OSP if the abstracts in the links below are of interest):

[Transformation of Biomass into Commodity Chemicals Using Enzymes or Cells](#)

[Bio-based Chemicals: Value Added Products from Biorefineries](#)

[Generation of an atlas for commodity chemical production in \*Escherichia coli\*](#)

## Science Policy

*Science & Diplomacy*, a quarterly publication from the AAAS Center for

29 September - 1 October  
4th meeting of the TWG on Verification

6-9 October  
[Spiez CONVERGENCE 2014 workshop](#)

10 October  
Science for Diplomats (2) - Biomedical Sample Analysis (side event at EC-77)

13:30-15:00, Ooms Room

### Science Fun:

A crowd source challenge to [outsmart illegal methamphetamine producers](#)

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[Cell phone data](#) to help predict the spread of disease

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[The Thousand Robot Flash Mob](#) (video)

[How it works](#)

[Why studying sheep](#) makes for better behaved robot mobs

### Contact:

For questions, comments, suggestions, contributions, further information or to be added to the mailing list, please contact the [Science Policy Adviser](#) in the Office of Strategy and Policy

Science Diplomacy, recently published [a series of articles](#) related to science diplomacy and the Islamic Republic of Iran.

A topical collection of papers on assessing the impact of emerging science and technology on public policy, from [Science and Public Policy](#) Vol 41 No 3.

## BWC Meeting of Experts in Geneva

The 2014 Biological Weapons Convention Meeting of Experts (BWC MX) took place from 4 - 8 August at the UN Headquarters in Geneva. Like the CWC, the BWC is a convention underpinned by science and technology, and with the ever increasing convergence of the sciences, stakeholders from both treaty regimes are finding topics of common interest in S&T assessment. We present some highlights of the S&T discussions from the 2014 meeting. More information on the meeting itself can be found [here](#).

Background and Working Papers on S&T

[Advances in science and technology related to the Convention](#) – from the BWC ISU

[Understanding Pathogenicity and Virulence](#) – from the USA

[Evasion of the Host Immune Response by Pathogens](#) – from the UK

Presentations by the World Health Organisation (WHO)

[WHO's support to countries: Global System and National Capacities](#)

[Ebola virus in West Africa and international spread](#)

Perspectives from the Biotech Industry Organization (BIO)

[Advances in Technology for Biosurveillance and Detection for Preparedness Under the Biological Weapons Convention](#)

[Presentation on vaccines from SIGA Technologies](#)

Presentation from Sweden

[Botulinum toxin: a dual use problem](#)

On Gene Editing technologies

[Regulating Gene Drives](#)

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