

**Agenda for BIPM-WADA Symposium 28-29 September 2016**

**STANDARDS AND METROLOGY FOR ANTI-DOPING ANALYSIS**

**Day 1: Wednesday 28<sup>th</sup> September**

8.30-9.00 Registration

**Opening of the meeting**

9.00-9.05 Opening of the meeting (**Dr Robert Wielgosz**)

9.05-9.15 Opening Address by the Minister of State for Sport, attached to the Minister of Urban Affairs, Youth and Sport (**Mr Thierry Braillard**)

9.15-9.25 Reply by the Director of the BIPM (**Dr Martin Milton**)

9.25-9.35 Address by the Chair of WADA Health and Medical Research Commission (**Dr Valérie Fourneyron**)

9.35-9.45 Address by the Director of the Office of Special Programs, NIST (**Dr Richard Cavanagh**)

9.50-10.20 *Group Photograph /Coffee Break*

**METROLOGY FOR ANTI-DOPING ANALYSIS: CURRENT ISSUES**

**Session 1 Metrology Needs and Reference Material requirements for Anti-Doping Analysis**

**Co-Chairs: Lindsey Mackay/John Miller**

10.20-10.40 Overview of WADA activities and viewpoint on metrology (**John Miller – WADA Lab Expert Group**)

10.40-11.00 Overview of CCQM activities in organic and bioanalysis (**Robert Wielgosz – BIPM**)

11.00-11.20 Reference Materials for Doping Analysis (**Lindsey Mackay - NMIA, Australia**)

11.20-11.40 Metrology support for doping analysis at the Rio Olympics (**Bruno Garrido - INMETRO, Brazil**)

11.40-12.00 (Certified)RM requirements – availability and gap analysis (**Peter van Eenoo – DoCo Lab, Belgium**)

12.00-12.30 **Discussion 1** - (C) RM priorities for WADA Code compliance and accreditation

12.30-13.00 *Press Conference (Grand Salle, Pavillon de Breteuil)*

12.30-14.00 *Lunch*

**Session 2: Measurement Uncertainty (MU) of Determinations of Threshold Substances (TS)**

**Co-Chairs: Robert Wielgosz/Peter van Eenoo**

14.00-14.20 “Bottom up” (GUM) approach to MU assignment for organic analytes (**Chris Mussell - LGC, UK**)

14.20-14.40 “Top-down” approaches to MU assignment of Threshold Substance determinations (**Peter van Eenoo - DoCo Lab, Belgium**)

14.40-15.00 Practical Implementation of the GUM (**Antonio Possolo - NIST, USA**)

15.00-15.30 **Discussion 2** - “Best (Fit-for-purpose) practice” for assigning and applying MU for TS results

15.30-16.00 *Coffee Break*

**Session 3: Roles of Comparisons and EQAS studies in Measurement Systems**

**Co-Chairs: Steven Westwood/Victoria Ivanova**

16.00-16.20 CCQM Key comparisons and NMI measurement services for EQAS providers (**Lindsey Mackay - NMIA, Australia**)

16.20-16.40 EQAS in clinical chemistry: Linking routine analysis to reference laboratory results (**Anja Kessler - RfB, Germany**)

16.40-17.00 Expanding the role and use of WADA EQAS studies and results (**Thierry Boghosian - WADA**)

17.00-17.30 **Discussion 3** – Enhancing the value of WADA EQAS studies for anti-doping analysis

18.00-21.00 **Reception and buffet dinner at BIPM**

Day 2: Thursday 29<sup>th</sup> September

### METROLOGY FOR ANTI-DOPING ANALYSIS: EMERGING ISSUES

**Session 4: Measurement systems for quantitative biomolecule analysis – Part 1**

**Co-Chairs: Robert Wielgosz/Osquel Barroso**

9.00-9.20 WADA Isoform assay for detecting and reporting doping with hGH  
**(Martin Bidlingmaier - Endocrine Laboratory, LMU Munich, Germany)**

9.20-9.40 Reference measurements for hGH **(Andre Henrion - PTB, Germany)**

9.40-10.00 Biomarker assay for hGH and the role of IGF-1 measurements  
**(David Cowan – Doping Control Centre, King’s College London, UK)**

10.00-10.20 Reference measurements for IGF-1 **(David Bunk - NIST, USA)**

10.20-10.30 **Discussion 4** – Measurement systems for quantitative protein analysis

10.30-11.00 *Coffee Break*

**Session 5: Measurement systems for quantitative biomolecule analysis - Part 2**

**Co-Chairs: Lindsey Mackay/Peter van Eenoo**

11.00-11.20 Realising traceable, comparable results for steroid hormone analysis  
**(Hubert Vesper - Centre for Disease Control, USA)**

11.20-11.40 Measurement issues for detection by GC-IRMS of doping with steroids  
**(Thomas Piper - Sport University Cologne, Germany)**

11.40-12.00 Accreditation assessment of GC-IRMS  
**(Detlef Thieme - IDAS, Germany)**

12.00-12.20 Dealing with bias in measurements of endogenous substances  
**(Elvar Theodorsson - Clinical and Experimental Medicine, University of Linköping, Sweden)**

12.20-12.40 Detection systems for gene doping **(Anna Baoutina - NMIA, Australia)**

12.40-13.00 **Discussion 5** – Standards and Metrology for Emerging Analytical Challenges

13.00-14.00 *Lunch*

**Session 6: Measurement support for qualitative analysis**

**Co-Chairs: Steven Westwood/Detlef Thieme**

14.00-14.20 Determining and controlling the LOD of methods for qualitative organic analysis  
**(Steve Ellison - LGC, UK)**

14.20-14.40 Detection of doping with peptide non-Threshold Substances  
**(Mario Thevis -Sport University Cologne, Germany)**

14.40-15.00 Determination of the decision limit CC- $\alpha$  and detection capability CC- $\beta$  for analytical methods based on mass spectrometry **(Corinne Buisson -AFLD, France)**

**Session 7: Workshop Summary and Recommendations**

**Panel to lead discussion**

15.00-15.30 **Discussion 6** - Review of recommendations for metrology support of anti-doping analysis

15.30-15.45 Summary of Workshop and Recommended Outcomes

**Co-Chairs: Olivier Rabin, WADA/Robert Wielgosz, BIPM**

*Coffee Break and Close*