

**INTERNATIONAL SYMPOSIUM  
Pharmaceutical Reference Standards**

**Chemical & Herbal Reference Standards  
Workshop Conclusion**

**9-10 October 2008  
Strasbourg, France**

**Certified reference materials: A possible approach for  
Pharmacopoeias and Pharmaceutical Industry  
Dr. Steve Wood**

- Certified reference materials
- Traceability
- ISO REMCO
- ISO Guides for reference materials
- Production of certified reference materials
- Discussion: Stability studies to be incorporated into uncertainty?

## Non-compendial applications of standards- Needs and expectations from the industry

Dr. Hanno Binder

- CRS for related substances
- Non-compendial use of a CRS
  - CRS for finished products
  - CRS used in other methods?
- Chapter 5.12
- Needs and expectations from industry
- Harmonisation of standards?
- CRS used in microbiological assays are better harmonised

## New technologies in characterisation

Prof. Markus Veit

- Quantitative NMR for value assignment

## Standards for herbal drugs and preparations

### Dr. Keith Helliwell

- The use of reference standards in monographs on herbal drugs and herbal drug preparations
- Herbal drug reference standards: Reference standards for microscopical identification (students are not well trained anymore)
- Herbal drug preparation reference standards
- Chemical reference standards
- Rapid increase in number of monographs
- Qualitative and quantitative evaluation

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5

## Standards for impurities

### Dr. Andrea Lodi

- Classification of impurities
- Role of impurity CRS in the monograph
- Establishment of impurity CRS – preferred option : individual impurities, when necessary with assigned value
- Use of spiked APIs for peak identification and system suitability test
- Strategy for development of impurity standards in conjunction with elaboration of monograph

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6

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**Biological Reference Standards  
Workshop Conclusion**

**Dr. Sol Ruiz  
Vice-chair BWP/CHMP/EMA  
9-10 October 2008  
Strasbourg, France**

**General Points (1)**

- For most groups of biologicals International Standards calibrated in IU will continue to be the mainstay for many years
- For selected biologicals (small - medium sized peptides, without glycosylation) shift from biological to chemical RS is feasible and has been used successfully but is extremely labour-intensive (somatropin, insulin).

## General Points (2)

- Product-specific RS will become more important (e.g. for assay of combination vaccines, shift to immuno-chemical methods for replacement of animal experiments). This will create a significant challenge to the concept of global international standardisation
- Industry requests batch-specific certificate to be sent with each shipment
  - For EDQM RS Batch Validity Statement available from EDQM website

## Establishment & Use of Biological RS

- Industry in general prefers to use official standards over in-house standards but sees concerns regarding availability in time.
- Industry would like to see early involvement in establishment of RS
  - Discussion on prioritization of work program
  - Information on as to when standards are available

## Interaction with Users

- Need for more feedback from users of official RS to providers on observations during use (in particular stability issues)
- Stability of RS: request for more information
- Proposal: include information on stability monitoring
  - In publication (for EDQM: Pharmeuropa-Bio)
  - In product leaflets

## Harmonisation

- Ongoing need for harmonisation WHO- regional pharmacopoeias in field of biologicals
  - Methods (in particular assay)
  - Standards
- Ongoing need for harmonisation between regional pharmacopoeias
  - Particular problem for RS for peptides (same batch can be labelled with different content in different regions)