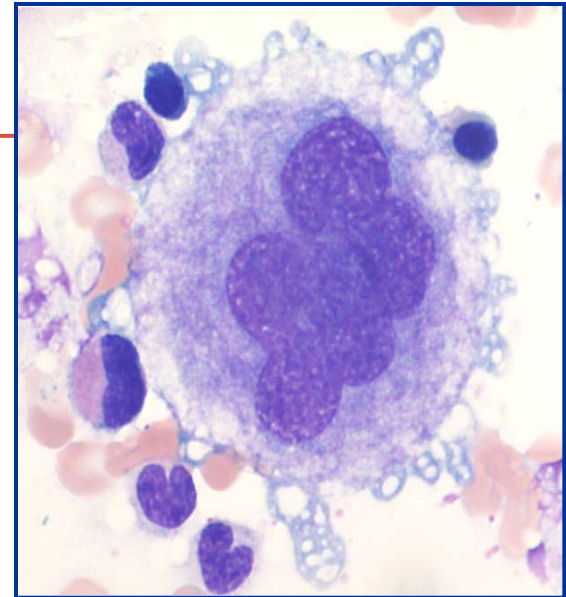


ICSH GUIDELINES & STANDARDS

Samuel J Machin
University College London, UK
President ICSH

JCTLM Symposium
December 2015



ICSH: History

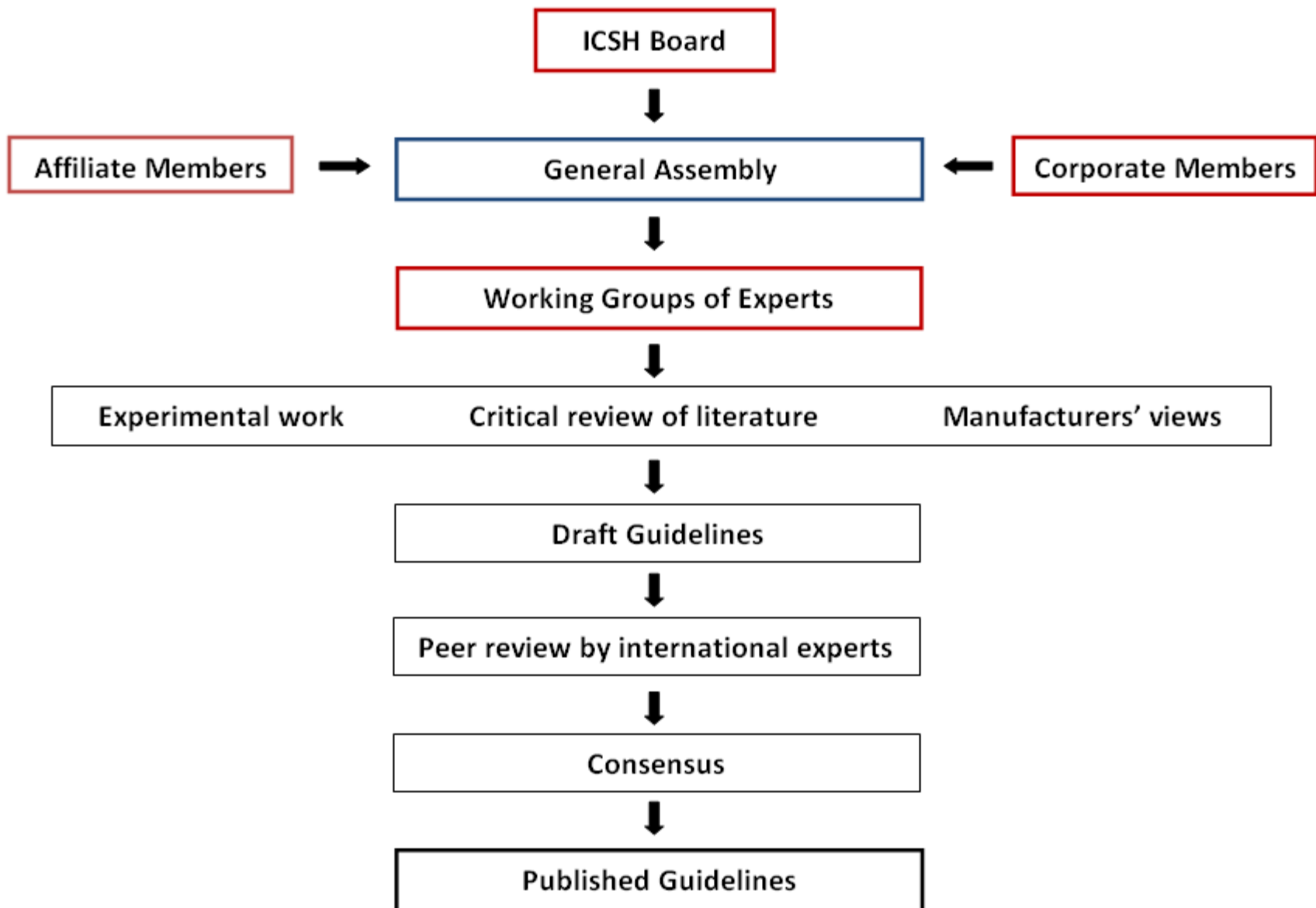
- 1963 Founded by the European Society of Haematology
- 1964 Reconstituted at the ISH World Congress
- 1968 Registered in the Netherlands
 - Recognized as an NGO by the WHO
- 1991 Renamed “International Council for Standardization in Haematology”
- 1995 - Retirement of many senior ICSH members
- 2007 Revived and re-registered in the Netherlands

ICSH: Aims

- The ICSH is a not-for-profit organisation that aims to achieve reliable and reproducible results in laboratory analysis in the field of diagnostic haematology.
- The ICSH coordinates Working Groups of experts to:
 - examine laboratory methods and instruments for haematological analyses
 - deliberate on issues of standardization
 - stimulate and coordinate scientific work
 - develop international standardization materials and guidelines

ICSH: Participation

- Working Groups of Experts:
 - Teams of scientific experts with international representation
- Affiliate Members:
 - International, regional and national haematological and clinical pathology societies
- Corporate Members:
 - Industrial corporate sponsors



ROLE OF ICSH

- to prepare truly international guidelines, freely available, applicable to all new instrument/analyser equipment
- prepare appropriate standard materials where applicable (ie Hb, A₂, reference platelet count)
- regularly review and update all advice
- liaise with relevant national and international standard bodies (ie JCTLM, WHO)

Potential JCTLM/ICSH Way Ahead

- presently only 2 listed submissions for blood cell counting
 - red cell count
 - white cell count
 - 1 analyte
- blood cell counting review team not related to ICSH
- team leader, L. Wang from NIST, not involved ICSH
- 6 review team members, only 3 attend ICSH meetings
- not involved in blood groupings or coagulation factors

Potential ICSH standards

- flow cytometric platelet count (Amer. J Clin Path 2001)
- haemoglobincyanide standard for Haemoglobin (Hb).(Int. J. Lab. Hem. 2010).
- WBC flow cytometry as reference method for performing nuclear cell identification in blood (Cytometry 2012).
- HbA₂ joint project with IFCC to produce an acceptable method for a primary standard (Int. J. Lab. Hem. 2012, 2014).

Other issues being considered

- MPV
- Reticulated platelets (IPF)
- assessment of red cell reticulocyte maturity
- digital imaging (microscope morphology) to define cell types

- JCTLM/IFCC to send representative to annual ICSH meeting in October 2016

- www.ICSH.org

ICSH HAEMOGLOBIN (haemoglobincyanide) STANDARD

Davis et al. Int. J. Lab. Hem 2010 : 32, 139-141

- derived from lysed bovine blood converted to HiCN by a cyanide-ferricyanide reagent, purified, then assayed in comparison at 6 reference labs.
- enables calibration of Hb method
- stability expectation 15 years
- manufactured by Eurotrol, BV. (www.eurotrol.com)
- collaborate with JCTLM, CLSI, WHO and EU etc