

## Draft template for biennial activity report from JCTLM Member organizations

All JCTLM Members are invited to attend the Members' and Stakeholders' Meeting, which is held once every two years, and submit a report of their activities in support of traceability in laboratory medicine over the preceding period.

For that purpose this template document provides guidance to JCTLM Members for drafting their biennial activity report. Organizations are invited to provide the information below for submission to the Executive Committee.

<p><b>Organization: Beijing Aerospace General Hospital</b></p> <p><b>JCTLM Member status:</b></p> <p><b>Author(s): Chen baorong</b></p> <p><b>Author(s) email(s): jyk711@126.com</b></p> <p><b>Period covered: 2015 – 2017</b></p>
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### 1. Major achievement(s) in support of standardization in laboratory medicine

(Please describe what activities your organization has undertaken related to the implementation of reference measurement systems in laboratory medicine during the last two years, including but not limited to information on: the production of certified reference materials; the development of reference measurement methods; or the establishment of calibration (reference) measurement services. Outline the measurement area(s)/measurands covered, and, provide a listing of the relevant technical/scientific publications.)

#### Matrix certified reference materials

Type	Name	Code
Enzymes	Catalytic Activity Concentration of ALT、AST、GGT in Human Serum (Level 1/Level 2)	GBW(E)090282 GBW(E)090283
	Catalytic Activity Concentration of CK、LDH in Human Serum (Level 1/Level 2/Level 3)	GBW(E)090284 GBW(E)090285 GBW(E)090751
	Catalytic Activity Concentration of AMY in Human Serum (Level 1/Level 2)	GBW(E)090595 GBW(E)090286
	Catalytic Activity Concentration of ALP in Human Serum (Level 1/Level 2)	GBW(E)090749 GBW(E)090750
Proteins	Concentration of Total Protein in Human Serum (Level 1/Level 2/Level 3)	GBW09186 GBW09187 GBW09188
Metabolites and substrates	Glucose in Frozen Human Serum (Level 1/Level 2/Level 3/Level 4/Level 5)	GBW(E)090432 GBW(E)090433 GBW(E)090434 GBW(E)090435 GBW(E)090436
	TBIL in Frozen Human Serum (Level 1/Level 2)	GBW09184 GBW09185

#### Reference measurement methods

Analyte	Approach	Matrix
Aldosterone	ID-MS/MS	Serum

Lipase	spectrophotometry	Serum
Renin	ID-MS/MS	Serum

#### Calibration (reference) measurement services

Analyte	Approach	Matrix	CRM code
LDH	spectrophotometry	purity	ERM®-AD453k/IFCC
ALT	spectrophotometry	purity	ERM®-AD454k/IFCC
CK-MM	spectrophotometry	purity	ERM®-AD455k/IFCC
ALP	spectrophotometry	Serum	---
AST	spectrophotometry	Serum	---
ALT、AST、GGT、CK、 LDH、AMY、ALP、 Glucose、Urea、TBIL、TP	spectrophotometry	Serum	---

#### Publications

Authors	Title	Journal, issue, page
Liu chunlong, Hu bin, Sun huiying, Han yuxia, Chen baorong	Impact of Laboratory Light Intensity on Domous reference Methods	Chinese Journal of Clinical Laboratory Science 2015,33(9)
Liu chunlong, Chen long, Sun huiying, Hu bin, Han yuxia, Chen baorong	Statistical Introduction to Clinical Biochemistry Test Response Surface Methodology	Chinese Journal of Health Statistics 2015,32(5)
Liu chunlong, Hu bin, Sun huiying, Han yuxia, Chen baorong	Stability evaluation of AST RELA sample	Chinese Journal of Clinical Laboratory Science 2015,33(11)
Chen qiuyue, Chen baorong	Progress in the Standardization of Serum Lipase measured	Chinese Journal of Clinical Laboratory Science 2015,33(12)
Sun huiying, Hu bin, Liu chunlong, Chen baorong	Study of the influence of raw materials for reagents to the results of $\alpha$ -amylase reference method	Laboratory Medicine and Clinic 2016.13(3)
Liu chunlong, Sun huiying, Hu bin, Han yuxia, Chen baorong	Evaluation on comparability of measurement results between Hitachi 7600 automatic biochemical analyzer and Beckman DXC800 automatic biochemical analyzer	Laboratory Medicine and Clinic 2016.13(5)
Hu bin, Liu chunlong, Sun huiying, Han yuxia, Chen baorong	Influence of sample illumination time on serum total bilirubin measurement	Laboratory Medicine and Clinic 2016.13(16)
Liu chunlong, Shao yan, Hu bin, Sun huiying, Han yuxia, Chen baorong	Effect of indicating values of calibrator for serum total bilirubin sourced from different manufacturers on commutability evaluation	Chinese Journal of Clinical Laboratory Science 2016,34(11)
Ma zhankui, Lv chunlan, Shao yan, Sun huiying, Liu chunlong, Hu bin, Chen baorong	Impact of uncertainty level of calibrator from product on its commutability evaluation	Chinese Journal of Clinical Laboratory Science 2016,34(11)
Han yuxia, Shao yan, Sun huiying, Hu bin, Liu chunlong, Chen baorong	Investigation on uncertainty information of 11 total bilirubin calibrator	Chinese Journal of Clinical Laboratory Science 2016,34(11)
Chen baorong, Shao yan, Liu chunlong, Sun huiying, Hu bin, Han yuxia	Effect of different evaluation methods on evaluation results of commutability	Chinese Journal of Clinical Laboratory Science 2016,34(11)

Chen baorong, Sun huiying, Liu chunlong, Shao yan, Hu bin, Li yun	Application of a new program in commutability evaluation process of candidate total bilirubin reference materials	Chinese Journal of Clinical Laboratory Science 2016,34(11)
Sun huiying, Shi guanghua, Huang xianzhang, Wang huimin, Hu weijiang, Lv lei, Hu bin, Wang jianbing, Wang jianxin, Liu chunlong, Chen baorong, Lv jing	Investigations on the effect of measuring value transfer for human serum samples assigned by the reference laboratory network	Chinese Journal of Clinical Laboratory Science 2017,35(2)
Li min, Sun huiying, Hu bin, Han yuxia, Jia xiaopeng, Chen baorong	Observation of prealbumin trueness and consistency which are traced on a same reference material	Chinese Journal of Clinical Laboratory Science 2017,35(9)

## 2. Planned activity(ies) in support of standardization in laboratory medicine

(Please outline R&D project(s) and/or programme(s) planned by your organization in the next two years including information on: new measurement area(s)/meurands of interest for your organization; new CRMs and renewals of materials; development of methods (new measurands and improved measurement technique/principle); and extensions of your calibration measurement service(s) portfolio.)

- 2.1 we will develop reference method of Aldosterone, Lipase, Renin and DBIL.
- 2.2 We will develop the study of uE3 measurement standardization.
- 2.3 we will develop the objects including the reference interval of renal function index, matrix study on testosterone/CRP.
- 2.4 We will continue to hold measurement uncertainty national continuing education project.

## 3. Promoting traceability in laboratory medicine

(Please describe activities your organization has undertaken during the last two years for promoting traceability in laboratory medicine including but not limited to a listing of your publication(s), presentation(s) and other communication(s) on traceability at international and national conferences or congresses, or other forums for clinical laboratory medicine)

- 3.1 We have held measurement uncertainty national continuing education project four times.
- 3.2 We have finished some lectures, for example, the annual meeting of reference system, the meeting of chinese medical association and so on.
- 3.3 We have researched on the accuracy of the measurement results of the Beijing-Tianjin-Hebei clinic laboratory.
- 3.3 We have researched the selection of Kit and the performance evaluation of Kit.
- 3.4 We have started the comparability study of the frozen human serum in improving the traceability of the measurement result.

## 4. Reference laboratory networks /collaborations focusing on developing /implementing reference measurement systems

(Please describe your participation in laboratory networks, forums or professional/technical committees linked to reference measurements system development/implementation, and contributions to JCTLM Working Group activities.)

- 4.1 We have successfully organized the inter-clinical lab comparison using frozen human serum several times in our country.
- 4.2 We has been the member of the chinese reference lab network, EU cooperation lab and JCTLM.
- 4.3 We are the member of JCTLM WG-TEP. We had recommended five metrology terms and be adopted.
- 4.4 We have participated the value assignment of IRMM and other chinese reference materials.
- 4.5 We are the members of academic committee in China.

## 5. Open questions and suggestions to be addressed by JCTLM

(Suggestions on issues related to standardization and metrological traceability that should be considered by the JCTLM)

Note: The information of this report will be accessible publicly on the relevant JCTLM Members webpage, unless the author of the report states otherwise. In the case the organization does not authorize the publication of the report in part or full, the author will add a statement to clarify which part(s) of the report will /will not be rendered public.