



October 2015

Report on activities as JCTLM member

As an External Quality Assessment Schemes organizer IN STAND e.V. is assigned as reference institute by the *German Medical Association*. In its own reference laboratory the reference measurement procedures required in the *Guidelines of the German Medical Association on Quality Assurance in Medical Laboratory Testing* are established to set target values for EQA scheme evaluations.

Since 2006 the reference laboratory of IN STAND e.V. has been accredited as a calibration laboratory according to the international standards DIN EN ISO/IEC 17025 und DIN EN ISO 15195, operating according to DIN EN ISO 15193.

Actually, the scope of our accreditation covers 22 measurands in the field of laboratory medicine. For these analytes IN STAND e.V. is listed in the JCTLM database for reference measurement services. An extension of the accreditation scope for 5 additional measurands was achieved in August 2015, which we are looking forward to be listed in the JCTLM data base as well.

The above mentioned measurands are as follows:

Substrates: Cholesterol, Creatinine, Glucose, Urea, Uric Acid, Total Glycerides

Hormones: Cortisol, 17 β -Estradiol, Progesterone, Testosterone, Thyroxine

Proteins: HbA1c, Total Protein

Ions: Calcium, Chloride, Potassium, Lithium, Magnesium, Sodium

Enzymes: ALT, AST, CK, GGT, LDH

Drugs: Digitoxin, Digoxin, Theophylline

As calibration laboratory INSTAND e.V. participates annually in the international, inter-comparison studies of the RELA ring trials and in the intercomparison studies of the IFCC HbA1c network laboratories.

To promote the concept of traceability of measurement results to SI units the reference laboratory of INSTAND e.V. works together with the German National Metrology Institute "Physikalisch-technische Bundesanstalt "(PTB, Berlin and Braunschweig). In cooperation with the PTB the reference laboratory establishes a reference measurement procedure for determination of blood cell concentrations on the basis of flow cytometric cell counting and a reference measurement procedure for determination of total hemoglobin. As member of the IFCC Working Group on HbA2 Standardization INSTAND e.V. is in process of developing a reference measurement procedure based on peptide mapping for HbA2 by LC-IDMS. Within the Joint research Project "JRP HLT05" as part of the European Metrology Research Programme (EMRP), INSTAND e.V. has also been active in the field of metrology for metalloproteins as a cooperation partner together with the PTB. Moreover, INSTAND e.V. participates in the ongoing EMRP calls for the projects "Metrology support for the safety of blood products" and "Role of metals and metal containing biomolecules in neurodegenerative diseases such as Alzheimer's disease". In order to further develop the quality of accuracy-based External Quality Assessment Schemes commutability studies focused on HbA1c have been performed in cooperation with two other European EQA/PT organizers (Kaiser et al. CCLM, in preparation).



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Chairman of INSTAND e.V.



Dr. Patricia Kaiser
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