Nucleic Acid Metrology NAM@METAS
Kai N. Stölting (kai.stoelting@metas.ch), Federal Institute of Metrology METAS, Lindenweg 50, 3003 Bern-Wabern, Switzerland

Abstract
METAS is establishing a metrological laboratory for questions related to laboratory medicine with a focus on nucleic acids (DNA & RNA). The laboratory works on analytes with particular relevance for Swiss patient populations. Besides developing metrologically traceable reference materials and methods, the laboratory is tasked to communicate the added value of metrological traceability in particular towards healthcare professionals. METAS efforts complement international activities such as those coordinated by European Metrology Networks to further the acceptance and use of metrologically traceable reference materials and methods for biological analytes.

Vision – METAS:
... is a reliable partner and service provider for questions concerning metrological traceability
... wants to influence developments concerning nucleic acid analyses in the long term
... neither supervises nor provides diagnostic services. Within the framework of its legal mandate and in the interest of a high-level Swiss healthcare system, METAS makes its knowledge and experience available

Nucleic acid metrology at METAS:
... arises in response to changing regulatory and scientific framework conditions in Switzerland and surrounding European countries
... is part of intensive Europe-wide efforts to improve comparability, measurement accuracy and traceability in laboratory medical measurements

Laboratory Medicine:
• ~70% of all medical decisions influenced by measurement results
• ~8’000 Swiss medical laboratories
• >1.75B CHF reimbursed analyses 2017 (in Switzerland):

Selection of Analytes:
→ Sepsis Pathogens
→ Synthetic DNA Standards

Traceability:
Traceability and uncertainty are little known concepts to many health professionals

We’re hiring:
PhD Student in Nucleic Acid Metrology