

# 2<sup>nd</sup> International Conference on Health Informatics and Technology

July 27-29, 2015 Valencia, Spain

## The integration of a laboratory information management system within a national livestock identification and traceability system in African countries

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The control of animal diseases relies on rapid, accurate and reliable diagnoses, allowing early detection and response to disease outbreaks. Reduction in diseases, in particular zoonosis and greater safety of food have a direct effect on human health. In addition, the efficiency of a laboratory, and in particular accreditation according to ISO/IEC 17025 standards, is a pre-requisite for countries to access international trade. The LIMS called "SILAB for Africa" (SILABFA) is a web application developed by the Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise (IZSAM), it is in routine use in five different National Veterinary Laboratories in Namibia, Botswana, Zimbabwe, Zambia and Tanzania. A LIMS system is an important element of the chain of the traceability system such as the Livestock Identification and Traceability System (LITS) (e.g. LITS in Botswana, NAMLITS in Namibia, TANLITS in Tanzania). The inter-linkage and inter-operability between SILABFA and a LITS system can therefore greatly improve the quality of the entire cycle of livestock production from the field to the laboratory, up to the export process. Such inter-operability can allow to insert data only once in one system and make data automatically available to other systems in use which enables rapid and fluid data transfer. It can then increase the effectiveness and efficiency of services involved in this whole chain, enhancing the exchange of information, promoting a better communication among operators, even across borders and allows a systematic ongoing collection of animal health information available and analyzed by the Epidemiological Unit.

### Biography

Patrizia Colangeli has a degree in Engineering from the University "La Sapienza" of Rome, Italy. She worked at a private company in the applied mathematics and economy sector in Rome and after in a Bank in Teramo. Since 1991, she has worked at the Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise (IZSAM), where she is the Head of "Information systems development and management" unit. She managed the analysis and implementation of many information systems at enterprise, regional, national and sovra-national level among which: The Animal Health National Information System (i.e. Brucellosis, Bluetongue, West Nile Disease), Laboratory Information Management System, Administrative and Staff information management system, the Datawarehouse enterprise, National information system for the notification of animal diseases; Zoonoses National System, Web-based application for the international surveillance of bluetongue in the European Union, OIE Bluetongue Reference Laboratories network, and the SILAB for Africa: A LIMS for African Labs currently used in Namibia, Botswana, Zimbabwe, Zambia, and Tanzania.

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