

**PROPOSED 2016-2017 WORK PROGRAMME FOR THE EUROPEAN UNION
REFERENCE LABORATORY “Detection of animal proteins in feedingstuffs”
EURL-AP**

Walloon Agricultural Research Centre – CRA-W (Belgium)

Activities (1 to 7) and Subactivities (1.1 to 6.3) are presented including the amount of requested workload (estimated in man/day) as well as with their conformity with the DG Sante operational objectives (OO1 to OO4) as listed in the table at the end page of this document.

**Activity 1 Scientific advice & support to the European Commission
(255 m/d– OO1, OO3)**

1.1 Scientific advice and support to the European Commission (185m/d – OO1, OO3):

- *In relation to the development of EC feed legislation (in 2016 towards the extension of feed ban relaxation to pigs, preparation to poultry extension but also to all other changes supported by DG Sante),*
- *SOP production: definition of objectives, development, expert meetings, redaction (new SOPs and revision work for existing SOPs) and diffusion on internet*
- *Participation and scientific assistance to DG Sante meetings (e.g. SCoFCAH)*
- *Support to the Commission in view of the revision of annex VI of EC/152/2009 as amended by EC/51/2013.*
- *Participation in the annual EURL Directors co-ordination meeting.*
- *Technical assistance on request of DG Sante :e.g. scientific questions, comparison of methods, requested priority experiments, new feed materials (including industrial pig feed samples collected on request of DG Sante during the second half year of 2015). This assistance and related experiments concern issues which are not covered by other activities (e.g. Activities 4 and 5).*

- 1.2 On the request of DG Sante or the NRLs, performance of 35 counter-analyses on samples with disputed results (70 m/d – OO3).

Activity 2 Scientific knowledge vigilance and dissemination (130 m/d – OO1, OO3)

- 2.1 Upon the request of the European Commission or in order to fulfil his role as EURL, participation in international scientific fora/meetings related to animal proteins in feedstuffs and their detection (e.g. IAG meeting, workshops organised by joined EURLs, 3 others [e.g. CEN, workshops organised at Member State level by NRL...]) with prospective presentations and posters to prepare for it. (missions outside the EU will get the preceding agreement of DG Sante) (54m/d – OO1, OO3)
- 2.2 Valorisation of EURL-AP activities (production in journals, books, help to other EURL's, transfer of the EURL-AP micrograph collection to the public website) (60 m/d – OO1)
- 2.3 Expert meetings at EURL-AP (16 m/d – OO1, OO3)
 - *EU experts invited for scientific discussions on current issues on PAP detection.*
 - *Expert meetings may also be needed for SOP edition or revision [cf1.1]*
 - *Expert meetings on GTH and categories of materials (proposed collaboration with EURL-TSE)*

Activity 3 EURL-AP back office and technical skills (450 m/d – OO1, OO4)

- 3.1 Maintenance and development of the sample bank (300 m/d – OO1):
 - *Establishment of the specification for new materials or for renewal of existing materials of the EURL-AP sample bank,*
 - *Composition analyses and characterisation by official methods (PCR, microscopy) of the collected samples,*

- *Characterisation and homogeneity study of collected samples by other methods: rapid methods (NIRS, NIRM...), immuno assays, mass spectrometry*
- *Maintenance of informatics tools for the appropriate management of the samples (SMS system),*
- *Collection/production of samples of animal origin in support to EURL-AP method development experiments,*
- *Storing of the samples and production of microscopic image representative of the particles,*
- *Maintenance of the sample bank.*

3.2 Daily and long-term management of the EURL-AP (150 m/d – OO4):

- *Team organisation and administrative tasks,*
- *Maintenance of the competences of the EURL-AP team and formation to new methods (e.g. implementation of the GTH detection methods)*
- *Preparation of the reports of activities according to the report guidelines transmitted by DG Sante,*
- *Preparation of the next workprogramme and its matching with the operational objectives as defined by DG Sante as of 2015, its budget, the deliverables and the performance indicators,*
- *Filling ex-post results in performance indicator form*

Activity 4 Evaluation of the performance, development and improvement of the official analytical methods in place for the detection of PAPs (340 m/d – OO1)

Among evaluations different proposals were formulated in 2015 by EU partners: the EURL-AP staff, the NRL network and the IAG board. Needs for improvement of existing methods have been reviewed and already shortlisted by the EURL-AP :

- *Optimisation of bone detection in mineral matrices by alternative*

sedimentation methods or washings before microscopic characterisation.

- *Method for PAP detection in liquid samples*
- *Tuning of combination of light microscopy and PCR according to the types of feed and the forthcoming legal changes*
- *Digital PCR for counter balancing some inhibition issues by RT-PCR*
- *Definition and addition of measurement uncertainty around cut-off values of PCR (first to be implemented to the ruminant target as to finalise the validation report). [subcontracting is foreseen]*
- *Evaluation of official methods (LM and PCR) on feed with insect PAPs, including complementary species specific PCR targets and higher taxonomic rank targets when relevant.*
- *Calibrants for targets in development.*

Activity 5 Development and evaluation of complementary methods for the detection of PAPs (540 m/d – OO1)

Aside the combination of light microscopy and PCR, other methods need to be developed for accurate distinction of authorised materials vs unauthorised ones, for deeper taxonomic identification of PAPs, and as analytical support for the forthcoming lift of the feed ban. Over the 2 year period it cannot be excluded that other needs will be expressed by DG Sante and the EU Member States. Therefore DG Sante will be consulted for prioritisation of the subjects linked to the development of methods in order to realise a maximum out of this list within the limits of the established workload.

- 5.1 Development of complementary analytical methods necessary to assure the correct implementation of official methods and explorative or alternative methods [subcontracting is possible] (460 m/d – OO1).
- *Immunological methods for milk and blood derivatives vs prohibited PAPs*
 - *Mass spectrometry :*
 - *selection of blood peptides fit as taxonomic markers*
 - *detection of milk products*
 - *development of routine protocol for the detection of PAPs and blood*

products

- *FISH for taxonomic characterisation of terrestrial bones from sediments*
- *Infrared spectroscopic methods :NIR microscopy for the discrimination of animal particles in the flotote (potential discrimination between ruminant – porcine – poultry - fish muscular tissues)*
- *Gelatin identification by PCR, infrared spectroscopy and mass spectrometry*
- *Evaluation and testing of the sequential combination of the selected successful complementary methods with a view to the SOP operational diagrams completion.*
- *Performing EURL-AP available methods or adapting them on outbreak material to make them available for the NRLs network.*

5.2. Organization and preparation of collaborative studies for validation and implementation of methods from 5.1 [and 4] (when those methods are validated internally) (100 m/d – OO1).

Among the already planned studies :

- *implementation study for the porcine target*
- *validation study and implementation study for the poultry target (chicken-turkey)*

Activity 6 NRL network management and support (777 m/d – OO1, OO2, OO3)

6.1 Management, communication and scientific advice to the NRL network (317 m/d – OO2, OO3):

- *To supply information and scientific advices (including non-official experiments or analyses of results upon NRL submission [excluding counter analyses which are included in 1.2]). Over the recent years, since June 2013 to be precise, this request for scientific advice increased quite a*

lot as notably due to the combination of light microscopy and PCR. This combination of methods requires integration of results and involves a coordinated reflection from the EURL-AP experts (for microscopy and PCR)

- *To coordinate the preparation, reception, storage, maintenance and distribution to NRLs of samples containing animal proteins derived from different species and in particular from fish, poultry, pigs and ruminants to be used as reference or control materials¹.*
- *Production of technical guidelines for the network (redaction and posting on intranet) and production of support (e.g. excel files for cut-off determination...)*
- *To help to develop, extend and keep in the NRLs the highest standard of technical skill and quality management under accreditation on analytical methods for detection and identification of animal proteins in feed ingredients and in feedingstuffs.*
- *Audit NRLs, coordinate on-site training on methods of analysis and assist staff from NRLs if proficiency testing reveals limited experience (on agreement of DG Sante),*
- *Maintenance and update of EURL website (internet/intranet) to disseminate and share information with NRLs and others stake holders,*
- *Preparation and sending of newsletters for NRLs*

6.2 Organization of proficiency tests (at least yearly one combining microscopy and PCR, one for GTH detection in PATs) and follow-up (360 m/d – OO2):

- *Definition (with the collaboration of the DG Sante) of the objectives*
- *Preparation of the proficiency tests (including homogeneity study)*
- *Invitation of the NRLs to participate*
- *Packaging and sending of the samples*

¹ Samples prepared by the EURL-AP for NRLs and intended for other purposes than that of reference material (for instance for the organisation of proficiency test at the Member State level) will be charged to the requesting NRL as, according to DG Sante, this falls under the responsibilities and duties of the NRL and therefore not covered by the EURL-AP budget.

- *Collection of the results*
 - *Redaction of the reports*
- 6.3 Organization of specific training and scientific formation (100 m/d – OO1, OO2)
- *Expert training for microscopy (over the 2 years all NRLs will be invited to participate to this new type of training announced during the 9th EURL-AP workshop in Ireland, training costs for participants will be taken in charge by EURL-AP)*
 - *Classical training for microscopy and PCR (preparation, realisation at EURL-AP facilities)*
 - *Other educational activities (CD, DVD, training notes update...)*
 - *Contribution to the preparation and organisation of other DG Sante supported educational programs (TAIEX, BTSF)*

Activity 7 Organisation of EURL-AP workshops (80 m/d – OO1)

- *Infrastructure booking and organisation (meeting room, accommodation when organised in Belgium by the EURL-AP)*
- *Preparation of the agenda,*
- *Preparation of lectures*
- *Invitation of the attendees,*
- *Realisation of the workshop,*
- *Minutes of the workshop.*
- *Handling of participants' cost claims*

Note: For 2016 the EURL-AP will celebrate its 10th anniversary workshop in Belgium. This workshop will be an extended one with a one day conference for all stakeholders of the EURL-AP. For 2017, as for the last years, the workshop will be organised outside Belgium. A proposal from the Croatian NRL to host the workshop was received.

TABLE : OPERATIONAL OBJECTIVES

OO1: To ensure the development and use of high quality analytical methods across the EU-RL network
<ul style="list-style-type: none">- ensuring dissemination of analytical and reference methods from EU-RLs to NRLs;- monitoring of publication by EU-RLs of new developed methods and corresponding validation studies;- coordination of EU-RL activities on practical arrangements for the application of new analytical methods;- EU-RLs, NRLs and Member States coordination for the preparation of the 2016 work programmes regarding new or improved methods, and/or dissemination information means on methods and reference materials;- planning of trainings, meetings and workshops organised by the EU-RLs for the harmonization of diagnostic techniques and of methods of analysis;- promotion of EU-RLs collaboration with laboratories in third countries.
OO2: To maintain appropriate level of proficiency testing ensuring efficiency of control analysis methods
<ul style="list-style-type: none">- ensuring planning and initiation of comparative testing by EU-RLs in accordance with internationally accepted protocols;- address underperforming related issues within the EU-RL network;- coordination of EU-RLs, NRLs and the Member States for the planning of performance testing in the work programmes.
OO3: To ensure the availability of scientific and technical assistance provided by the EU-RLs
<ul style="list-style-type: none">- queries to EU-RLs for policy making and enforcement;- initiation of EU-RLs collaboration with EFSA and international organisations;- organisation of meetings for scientific and technical assistance from the EU-RLs;- guidance initiation regarding analytical methods;- networking activities for appropriate assistance by the EU-RLs.
OO4: To ensure a sound and efficient management of EU-RL funding cycle
<ul style="list-style-type: none">- collection, verification and validation of EU-RL work programmes;- control and verification of financial expenditure;- communication with EU-RLs for the execution of their work programmes;- evaluation of the EU-RL annual technical and financial report;- support to the EU-RLs for the preparation of their annual work programmes;- evaluation of the EU-RL reported performance indicator ex-ante and ex-post.