COST

Domain Committee "BMBS"

COST Action (*TD1101)*

Start Date (*18th November 2011)*

A Collaborative European Network on Rabbit Genome Biology (RGB-Net)

MONITORING PROGRESS REPORT

Reporting Period: *from (November 2011-April 2012)*

This Report is presented to the relevant Domain Committee.
It contains three parts:

I. Management Report *prepared by the Grant Holder*
II. Scientific Report *prepared by the Chair of the Management Committee of the Action*
III. Previous versions of the Scientific Report*; i.e., part II of past reporting periods*

The report is a "cumulative" report, i.e. it is updated annually and covers the entire period of the Action.

Confidentiality: the documents will be made available to the public via the COST Action web page except for chapter *II.D. Self evaluation*.

Based on the monitoring results, the COST Office will decide on the following year's budget allocation.

Executive summary: The Action currently includes 20 COST countries (two more countries than those of the founder group), 5 non-COST countries and 2 International Organizations, for a total of 98 WG people, of with 34% are females and 15 are ESRs, whose expertises made it possible to assign its involvement to four WGs. *Even if the Action has been running for few months several activities and programs have been already established. In particular the Bologna WG and MC meetings (28-30 March 2012) created the first opportunity to meet people and to plan cooperative activities among groups. This event was preceded by an on-line survey based on keywords extended to WG members that made it possible to collect information of expertises and field of research among researchers with a twofold aim: 1) managing purpose of the Action; 2) establishing a first level (upper level) of systems biology network through the Action. Several research cooperative activities have been planned within and across WGs, most of which were focused on WG1 themes that may represent the basis of further developments and advances with potential economic impacts in the rabbit research and production sectors. For example, the development of a commercial SNP chip (possibly available in 2013) has been considered a priority. SNPs will be derived by resequencing projects that will be coordinated in Europe. The multi-disciplinarity already present in this Action will help to boost innovative activities and projects focused on rabbit genome biology.*

I. Management Report prepared by the Grant Holder

I.A. COST Action Fact Sheet

- **COST Action** *TD1101 – A Collaborative European Network on Rabbit Genome Biology (RGB-Net)*
- **Domain** *BMBS*

- **Action details:**

CSO Approval: *(17/05/2011)* **End date:** *17/11/2015)*
Entry into force: *(21/06/2011)* **Extension:**

- **Objectives** *(from DB as in About COST)*

*The European rabbit (*Oryctolagus cuniculus*) is a key species in biology. Basic discoveries have been made investigating this mammal whose genome has been recently sequenced. The rabbit is a livestock, an animal model, a wild resource, a pest and a fancy animal and comprises a large number of breeding stocks/lines. This COST action will bring together experts in all rabbit research areas and in other complementary research fields (breeders, geneticists, bioinformaticians, physiologists, evolutionists, embryologists, immunologists, industry experts, etc.) in order to facilitate the transition of rabbit genomic information from experimental data into usable benefits and applications by means of networking expertise. Four Working Groups will be focused on i) the refinement of the European rabbit genome resource and the development of genome-based platforms, ii) genetic aspects in meat, fur and pet rabbits and biodiversity resources, iii) the rabbit as a model in basic biology and human diseases and as a tool for biotechnology applications and iv) genetic and comparative genomic aspects for the study, exploitation and management of wild lagomorphs. The outcome is a coordination of rabbit research activities and a transfer of knowledge which will produce a strong European added value across a broad spectrum of biology research fields.*

- **Parties:** *list of countries and date of acceptance*

Austria *(*09/02/2012*)*	Greece *(*02/08/2011*)*	Poland *(*14/03/2012*)*
Belgium *(date)*	Hungary *(*15/06/2011*)*	Portugal *(*21/06/2011*)*
Bulgaria *(*05/07/2011*)*	Iceland *(date)*	Romania *(date)*
Croatia *(*14/10/2011*)*	Ireland *(date)*	Serbia *(*08/06/2011*)*
Cyprus *(date)*	Israel *(date)*	Slovakia *(*10/01/2012*)*
Czech Rep. *(*08/07/2011*)*	Italy *(*22/06/2011*)*	Slovenia *(*08/06/2011*)*
Denmark *(date)*	Latvia *(date)*	Spain *(*30/08/2011*)*
Estonia *(date)*	Lithuania *(date)*	Sweden *(*16/09/2011*)*
Finland *(*09/08/2011*)*	Luxembourg *(date)*	Switzerland *(date)*
FYR of Macedonia *(*27/01/2012*)*	Malta *(date)*	Turkey *(*13/04/2012*)*
France *(*12/08/2011*)*	Netherlands *(date)*	United Kingdom *(*21/06/2011*)*
Germany *(*28/06/2011*)*	Norway *(date)*	

- **Intentions to accept:** *list of countries and date*

- ***Other participants:***
(FAO, Italy, Rome; EMBL-EBI, UK/Germany, Cambridge/Heildelberg;Broad Institute, USA, Cambridge, MA; NIH Laboratory of Immunology NIAID, USA, Bethesda MD; University of Stellenbosch, South Africa, Matieland; Livestock Research Institute, Taiwan, Hsinhua; University of Yamanashi School of Medicine Department of Molecular Pathology, Japan,

Yamanashi; China Agricultural University, China, Beijng; SAGE Labs-SIGMA-ALDRICH, USA, St. Louis MO; Arizona State University, USA, Temp AZ)

Chair: *(Prof. Luca Fontanesi, Dept. of Agro-Food Science and Technology, University of Bologna, Viale Fanin 46, +39 051 2096571, luca.fontanesi@unibo.it)*

DC Rapporteurs: *(Prof. Jacques Haiech, University of Strasbourg 4 rue Blaise Pascal, 67081 Strasbourg France, tel: +33368854270, e-mail: haiech@pharma.u-strasbg.fr;*

Prof. Vlatko Ilieski, Functional Morphology department Institute of Veterinary Biomedicine / Faculty of Veterinary Medicine University St. Cyryl and Methodius, Lazar Pop-Trajkov 5/7, 1000 Skopje, Macedonia, The Former Yugoslav Republic of, tel: +389 2 3240710, e-mail: vilieski@fvm.ukim.edu.mk)

Science Officer: *(*Dr Magdalena Radwanska*,* magdalena.radwanska@cost.eu*)*

Administrative Officer: *(*Ms Gabriela Cristea*,* gabriela.cristea@cost.eu*)*

Action Web site: http://www.biocomp.unibo.it/rabbit/

Grant Holder Representative *(Dr. Hervè Garreau,* Herve.Garreau@toulouse.inra.fr*)*

- **Working Groups** *(list of WGs and names and affiliations of participants)*

WG1 - Refinement of the European rabbit genome resource and development of genome-based platforms

Dr. Vasilis Promponas	Cyprus	University of Cyprus
Dr. Véronique Duranthon	France	INRA
Barbara Panneau	France	INRA
Dr. Claire Rogel Gaillard	France	INRA
Dr. Paul Flicek	Germany/UK – European Organization	EMBL-EBI
Dr. Andrew Yates	Germany/UK – European Organization	EMBL-EBI
Prof. Luca Fontanesi	Italy	Dept. of Agro-Food Science and Technology Sezione di Allevamenti Zootecnici, University of Bologna
Giuseppina Schiavo	Italy	Dept. of Agro-Food Science and Technology Sezione di Allevamenti Zootecnici, University of Bologna
Prof. Rita Casadio	Italy	Biocomputing Group, University of Bologna

Dr. Pier Luigi Martelli	Italy	Biocomputing Group, University of Bologna
Prof. Janusz M. Bujnicki	Poland	Laboratory of Bioinformatics and Protein Engineering, International Institute of Molecular and Cell Biology
Prof. Nuno Ferrand de Almeida	Portugal	University of Porto
Prof. Leif Andersson	Sweden	Department of Medical Biochemistry and Microbiology, Uppsala University
Dr. Mario Caccamo	UK	BBSRC Genome Analysis Center
Dr. Nizar Drou	UK	BBSRC Genome Analysis Center
Dr. Federica Di Palma	USA	Broad Institute
Dr. Rose Mage	USA	National Institutes of Health
Dr. Kerstin Lindblad-Tohas	USA	Broad Institute

WG2 – Genetics in meat, fur and pet rabbits and biodiversity resources

Prof. Ino Curik	Croatia	University of Zagreb
Dr. Daniel Allain	France	INRA
Dr. Hervé Garreau	France	INRA
Dr. Eduardo Manfredi	France	INRA
Dr. Gérard Bolet	France	INRA
Dr. Laurence Drouilhet	France	INRA
Dr. Thierry Gidenne	France	INRA
Dr. Jean-Jacques Ménigoz	France	Fédération Française de Cuniculture
Prof. Gudrun Brockmann	Germany	Humboldt-Universität zu Berlin
Dr. Ina Sternstein	Germany	Humboldt-Universität zu Berlin
Dr. Ronald Krieg	Germany	Small Animal Breeding and Research
Dr. Hildegard Lammers	Germany	Lapinchen

Prof. Eftychia Xylouri	Greece	Agricultural University of Athens, Faculty of Animal Science and Aquaculture
Dr. Eirini Fragkiadaki	Greece	Agricultural University of Athens, Faculty of Animal Science and Aquaculture
Prof. Nagy István	Hungary	Kaposvár University
Dr. Andrea Frabetti	Italy	Gruppo Martini SPA
Dr. Mario Giovannoli	Italy	ANCI-AIA (Associazione Nazionale Coniglicoltori Italiani)
Prof. Gregor Gorjanc	Slovenia	University of Ljubljana
Dr. Miriam Piles	Spain	Institut de Recerca I Tecnologia Agroalimentàries
Dr. Juan Pablo Sánchez	Spain	Institut de Recerca I Tecnologia Agroalimentàries
Dr. Raquel Quintanilla	Spain	Institut de Recerca I Tecnologia Agroalimentàries
Dr. Noelia Ibañez	Spain	Institut de Recerca I Tecnologia Agroalimentàries
Dr. Jules Hernandez	Spain	Institut de Recerca I Tecnologia Agroalimentàries
Prof. Jose S. Vicente	Spain	Universidad Politécnica de Valencia
Prof. Manuel Baselga	Spain	Universidad Politécnica de Valencia
Dr. Yinghe Qin	China	China Agricultural University
Dr. Paul Boettcher	Italy - International Organization	Animal Genetic Resources Branch, FAO

WG3 - The European rabbit as a model in basic biology and human diseases and as a tool for biotechnology applications

Prof. Ivan Penchev Georgiev	Bulgaria	Trakia University
Dr. Ekaterina Vachkova	Bulgaria	Trakia University

Prof. Teodora Georgieva	Bulgaria	Trakia University
Prof. Martin Faldyna	Czech Republic	Veterinary Research Institute
Dr. Jan Wikgren	Finland	University of Jyväskylä
Dr. Pierre Savatier	France	Institut National de la Santé et de la Recherche Médicale (INSERM)
Dr. Thierry Joly	France	ISARA
Dr. Jean-Jacques David	France	Hypharm
Dr. Eric Lacoste	France	Synelvia
Dr. Jean-Marc Roussel	France	Centre Lago
Dr. Alexandre Fouassier	France	Transgenic Rabbit Models
Dr. Eve Devinoy	France	INRA
Dr. Madia Charlier	France	INRA
Prof. Bernd Fischer	Germany	University of Halle, Martin Luther University Faculty of Medicine
Dr. Maria Schindler	Germany	University of Halle, Martin Luther University Faculty of Medicine
Dr. Anne Navarrete Santos	Germany	University of Halle, Martin Luther University Faculty of Medicine
Prof. Christoph Viebahn	Germany	Georg-August-Universität Göttingen
Dr. Britta Schönnagel	Germany	Charles River Laboratories
Dr. Katja Odening	Germany	University of Freiburg
Prof. Zsuzsanna Bősze	Hungary	Agricultural Biotechnology Center
Dr. Imre Kacskovics	Hungary	ImmunoGenes Kft
Dr. Laszlo Hiripi	Hungary	Agricultural Biotechnology Center
Dr. Attila Zsolnai	Hungary	Agricultural Biotechnology Center
Prof. Cristiano Boiti	Italy	University of Perugia
Prof. Cesare Castellini	Italy	University of Perugia
Prof. Darko Bosnakovski	Macedonia	University "Goce Delcev" Stip

Prof. Alexander Sirotkin	Slovak Republic	Animal Production Research Centre Nitra
Prof. Peter Chrenek	Slovak Republic	Animal Production Research Centre Nitra
Prof. Adriana Kolesarova	Slovak Republic	Slovak University of Agriculture in Nitra
Prof. Melih Aksoy	Turkey	
Dr. Domenico Spina	UK	Kings College London
Prof. Jianglin Fan	Japan	University of Yamanashi School of Medicine, Department of Molecular Pathology
Dr. Hsi-Hsun Wu	Taiwan R.O.C.	Livestock Research Institute
Dr. Edward Weinstein	USA	SAGE Labs, SIGMA-ALDRICH

WG4 – Genetics and comparative genomic aspects for the study, exploitation and management of wild lagomorphs

Prof. Dr. Klaus Hackländer	Austria	University of Natural Resources and Life Sciences, Vienna (BOKU) - Institute of Wildlife Biology and Game Management
Dr. Vlatka Cubrik	Croatia	University of Zagreb
Dr. Guillaume Queney	France	Antagene
Prof. Zissis Mamuriz	Greece	University of Thessaly
Dr. Szilvia Kusza	Hungary	University of Debrecen Centre for Agricultural and Applied Economic Sciences, Institute of Animal Science
Dr. Cristiano Vernesi	Italy	Centro Ricerca e Innovazione - Fondazione Edmund Mach
Dr. Paulo Célio Alves	Portugal	University of Porto, Dept. of Biology, Faculty of Sciences and CIBIO
Dr. Miguel Carneiro	Portugal	University of Porto
Dr. Pedro Esteves	Portugal	University of Porto

Prof. André Almeida	Portugal	Instituto de Investigação Científica Tropical, CVZ-Fac. Medicina Veterinária, Portugal
Prof. Mihajla Djan	Serbia	University of Novi Sad, Department of Biology and Ecology, Faculty of Sciences
Dr. Milos Beukovic	Serbia	Hunting Association of Vojvodina
Dr. Dragana Obreht	Serbia	University of Novi Sad, Department of Biology and Ecology, Faculty of Sciences
Dr. Nevena Velickovic	Serbia	University of Novi Sad, Department of Biology and Ecology, Faculty of Sciences
Dr. Natasa Kocis Tubic	Serbia	University of Novi Sad, Department of Biology and Ecology, Faculty of Sciences
Prof. Carl-Gustaf Thulin	Sweden	Swedish University of Agricultural Sciences
Prof. Piran White	UK	University of York
Prof. Teherence J. Robinson	South Africa	University of Stellenbosch
Prof. Andrew Smith	USA	Arizona State University

I.B. Management Committee member list

Name	Country	E-mail
Prof. Dr. Klaus Hackländer	Austria	klaus.hacklaender@boku.ac.at
Prof. Ivan Penchev Georgiev	Bulgaria	iv_p63@yahoo.com
Dr. Ekaterina Vachkova	Bulgaria	katvach@gbg.bg
Prof. Ino Curik	Croatia	icurik@agr.hr
Prof. Martin Faldyna	Czech Republic	faldyna@vri.cz
Dr. Jan Wikgren	Finland	jan.wikgren@jyu.fi
Dr. Hervé Garreau	France	Herve.Garreau@toulouse.inra.fr
Dr. Claire Rogel Gaillard	France	claire.rogel-gaillard@jouy.inra.fr Claire.Rogel-Gaillard@paris.inra.fr
Prof. Gudrun Brockmann	Germany	gudrun.brockmann@agrar.hu-berlin.de
Prof. Bernd Fischer	Germany	bernd.fischer@medizin.uni-halle.de
Prof. Eftychia Xylouri	Greece	efxil@aua.gr
Prof. Zissis Mamuriz	Greece	zmamur@bio.uth.gr
Prof. Zsuzsanna Bősze	Hungary	bosze@abc.hu
Prof. Nagy István	Hungary	nagy.istvan@ke.hu
Prof. Luca Fontanesi	Italy	luca.fontanesi@unibo.it
Prof. Rita Casadio	Italy	rita.casadio@unibo.it
Prof. Darko Bosnakovski	Macedonia	darko.bosnakovski@ugd.edu.mk
Prof. Janusz M. Bujnicki	Poland	iamb@genesilico.pl
Prof. Nuno Ferrand de Almeida	Portugal	nmferran@fc.up.pt
Prof. André Almeida	Portugal	aalmeida@fmv.utl.pt
Prof. Mihajla Djan	Serbia	mihajla.djan@dbe.uns.ac.rs
Prof. Peter Chrenek	Slovak Republic	chrenekp@cvzv.sk
Prof. Adriana Kolesarova	Slovak Republic	adrianakolesarova@yahoo.com Adriana.Kolesarova@uniag.sk
Prof. Gregor Gorjanc	Slovenia	gregor.gorjanc@bf.uni-lj.si
Dr. Miriam Piles	Spain	miriam.piles@irta.cat
Prof. Jose S. Vicente	Spain	jvicent@dca.upv.es
Prof. Leif Andersson	Sweden	leif.andersson@imbim.uu.se
Prof. Carl-Gustaf Thulin	Sweden	carl-gustaf.thulin@ebc.uu.se
Prof. Melih AKSOY	Turkey	
Dr. Mario Caccamo	UK	mario.caccamo@bbsrc.ac.uk

Dr. Domenico Spina	UK	domenico.spina@kcl.ac.uk
Prof. Teodora Georgieva	Bulgaria	tmgeorg@uni-sz.bg
Dr. Daniel Allain	France	Daniel.Allain@toulouse.inra.fr
Dr. Thierry Gidenne	France	thierry.gidenne@toulouse.inra.fr
Dr. Maria Schindler	Germany	maria.schindler@medizin.uni-halle.de
Dr. Anne Navarrete Santos	Germany	a.navarrete-santos@medizin.uni-halle.de
Dr. Eirini Fragkiadaki	Greece	irfrag@yahoo.com
Dr. Szilvia Kusza	Hungary	kusza@agr.unideb.hu kuszasz@hotmail.com
Dr. Laszlo Hiripi	Hungary	hiripi@abc.hu
Dr. Attila Zsolnai	Hungary	attila.zsolnai@gmail.com
Dr. Cristiano Vernesi	Italy	cristiano.vernesi@fmach.it cristiano.vernesi@iasma.it
Prof. Piran White	UK	pclw1@york.ac.uk

cost

*I.C. Overview activities and expenditure**

Meetings

Meeting Type	Date	Place							Cost	Total
WG and MC**	28-30 April 2012	Bologna							33000	**33000**

STSM

Beneficiary	Date	Place							Cost	Total
Five										**0**

Workshops

Title	Date		Place						Cost	Total
	From	To	From	To						
										0

General Support Grants

Beneficiary	Date								Cost	Total
										0

Schools

Title	Date	Place							Cost	Total
WG1 Training School organized in Autumn										**0**

Dissemination

Title	Date	Place							Cost	Total
Website***										**0**

Others

Action Total : 330 00

* Allocated expenses and activities will be carried out according to the budget plan.
** Reimbursements are still to be completed.
*** Waiting for approval of the University of Bologna Department in charge (BES).

II. Scientific Report *prepared by the Chair of the Management Committee of the Action, describing results achieved during the Action operation in this period, in no more than 3 pages (the report is "cumulative"). All items listed in Sections A, B, and C, below, must be addressed.*

Additional documentation such as extended scientific reports, proceedings of workshops, seminars or conferences may be provided separately as an annex to this report, and should be referenced in the report.

II.A. Innovative networking

- *Innovative knowledge resulting from COST networking through the Action. (Specific examples of Results vs. Objectives)*

The Action has been just started (kick-off meeting on the 18th of Nov. 2011), therefore it is clear that what we can present here is related to a very short period, in which results have been mainly obtained though the networking activities that made it possible to constitute the Action. Anyway, during this first period it is already possible to note interesting and positive developments and movements in the scientific community interested and involved in the Action.

The first RGB-Net Working Group meeting that was held in Bologna on the 28th-29th of March 2012 made it possible to gather many scientists and industries included in the four working groups. This meeting was preceded by an on-line survey based on 115 preselected keywords that identified working group members at that time (96 people) had been requested to select in order to obtain a first overview of expertises and possible networks within the Action. This activity had a twofold aim: 1) managing purpose of the Action and possibilities to address in appropriate ways possible interactions and complementarities though the different WGs; 2) establish a first level (upper level) of systems biology network through the Action. Obtained results will be further analysed and, possibly, could be part of a publication in specialized journals. The two days of the WG meeting was organized in the following way: one and a half day, presentations of different WG members (please see the program, Annex 1); half day of WG separated meetings organized as round tables with free discussions (please see the attached minutes of the four separated WG meetings, Annex 2). During these round tables, several proposals involving networking activities within and across WGs were presented and discussed. For example, in WG1: an improved annotation of the rabbit genome will be obtained combining resources and expertises from different groups; improved assemblies for a few rabbit genome regions (MHC and Ig loci) have been planned; SNP discoveries (with the contribution of different groups) should result in the preparation of a commercial SNP chip; and so on (please see the annexed minutes of WG1); an Agilent customized array has been made available for cooperative studies. The development of a commercial SNP chip should be prepared in collaboration with WG2. Again, within WG2, the FAO DAD-ID database will be updated including missed and additional relevant information for the rabbit. In addition, phenotyping in rabbits will be linked to the Animal Trait Ontology, currently being developed for several species. Moreover, WG4 planned activities were, for example, data sharing, protocol sharing for storing and genotyping, and a tissue bank (list of specimens available) from Museums.

- *Significant scientific breakthroughs as part of the COST Action. (Specific examples)*

A resequencing project including several domesticated rabbit breeds and wild rabbit populations has been announced and will include several groups involved in the Action. This project will focus on the domestication processes in the rabbit, considering the relatively short period of domestication of this species.

Improvement of the annotation and assembly of several parts of the rabbit genome will provide the basis for further developments and applications.

Data obtained from the on-line survey represents a new approach to combine and explore interactions and expertises among groups. The approach took advantage from a Systems biology vision considering experts as nodes to be linked.

- *Tangible medium term socio-economic impacts achieved or expected. (Specific examples)*

The development of a commercial SNP chip will provide an important tool to the rabbit research community to be used in several applications: genome wide association studies to identify QTL affecting economic traits; genomic selection; analysis of biodiversity; etc. All these applications will result in potentially important economic developments in the sector. For example, if genome wide association studies will be able to identify markers associated with disease resistance, this information could be immediately used in breeding plans that will be able to improve the efficiency of the selection on disease resistance of commercial lines.
Collaborations among different groups will provide new resources and expertises that could reduce research costs. For example, sharing customized arrays for gene expression and copy number variation analysis will save money and time in terms of development of these tools. In addition, expertises already present in different groups on these tools can be used to train Early Stage Researchers.

- *Spin off of new EC RTD Framework Programme proposals/projects. (List)*

At present, discussions have been started on the most appropriate ways and strategies to prepare EC RTD proposals. Lobbying has been envisaged in order to have appropriate EC calls as at the moment few possibilities for applications in this field are or will be available in the next future.

- *Spin off of new National Programme proposals/projects. (List)*

Similar discussions have been started for National Programmes in France, Portugal, Spain, Italy and Hungary. A few proposals are currently under preparations. Details will be provided as soon as they will be submitted or funded.

II.B. Inter-disciplinary networking

- *Additional knowledge obtained from working with other disciplines within the COST framework. (Specific examples)*

Combination of computation biology/bioinformatics and animal production/genetics expertises made it possible to establish and elaborate the on-line survey results.

- *Evaluation of whether the level of inter-disciplinarity is sufficient to potentially provide scientific impacts. (Specific examples)*

The on-line survey results provides a first overview of the expertises and inter-disciplinarity already included in the Action. Among the 115 preselected keywords, 108 were checked. That means that a quite high level of inter-disciplinarity is already present in the Action. If we combine these terms into general terms of systems biology 8 main categories were identified. Phenomics was the category with the highest weight, that means many experts work in this area or related fields. It is worth to mention that this category include many different scientific fields (i.e. from immunology to meat quality). Based on these data collected from experts associated to the Action, it is possible to say that the level of inter-disciplinarity is sufficient to potentially produce scientific advances and applications based on the exploitation of the rabbit genome and related fields.

- *Evaluation of whether the level of inter-disciplinarity is sufficient to potentially provide socio-economic impacts. (Specific examples)*

If we consider the development of a SNP chip and its potential economic impacts, this tool can be achieved only combining expertises already present in the Action, i.e. animal genomics, population genomics, bioinformatics, etc.

The refinement of the annotation and assembly of the rabbit genome will provide basic information for additional applications having economic impacts, like the characterization of rabbit models for human diseases, the production of transgenic rabbits, and so on.

II.C. New networking

- *Additional new members joining the Action during its life.*

Eighteen COST countries have contributed to the preparation of the COST application. All these countries are now included in the MC. In addition, The Former Yugoslav Republic of Macedonia and Turkey joined the Action in addition to the 18 founders countries.

- *Total number of individual participants involved in the Action work. (Number of participants. Give % of female and of Early Stage Researcher participants)*

A total of 98 scientists from 27 countries have been involved in the Action work. Females: 34%; ESRs: 15%.

- *Involvement of Early Stage Researchers in the Action, in particular with respect to STSMs, networking activities, and Training Schools. In addition, justification should be provided if less than 4 STSMs were carried out during the year.*

The Action has been just started. STSM applications will be collected during the next few weeks. The WG1 training school is going to be organized in Autumn 2012. Therefore, information to this question will be provided later.

- *Involvement of researchers from outside of COST Countries. (Number of participants from non-COST Countries approved by the CSO. Give % of such participants from countries with reciprocal agreements. Specify their contribution)*

Five non-COST Countries (China, Japan, South Africa, Taiwan and USA) have been included in the COST applications. A total of 9 researchers have been involved so far in the Action activities, one out of 9 (11%) is from a country (South Africa) with reciprocal agreements. Their contribution is on activities of WG1 (USA), WG2 (China and Taiwan), WG3 (USA, Japan) and WG4 (South Africa).

- *Advancement and promotion of scientific knowledge through publications and other outreach activities. (Number of publications and other outreach activities that resulted from COST networking through the Action. Complete list should be given in an annex)*

Posters and/or oral presentations of RGB-Net have been submitted to the following congresses:
1) International Society for Animal Genetics, ISAG2012, Cairns, Australia, July, 15-20 2012
2) 10th World Rabbit Congress, Sharm El-Sheikh (Egypt) 3-6 September, 2012
3) Four abstracts have been submitted by Action members for presentations/posters to the 4th World Lagomorph Conference, Vienna, Austria, July 23-27 2012.
4) A scientific paper has been submitted for publication: Fontanesi L., Martelli P.L., Scotti E., Russo V., Rogel-Gaillard C., Casadio R., Vernesi C. Exploring copy number variation in the rabbit (Oryctolagus cuniculus) genome by array comparative genome hybridization.
5) The Chair has attended the 2nd Working Group Meeting of COST Action FA1002, Farm

Animal Proteomics, Villamoura, Algarve, Portugal, 12-13 April 2012, presenting RGB-Net.

- *Activities and projects with COST network colleagues.*

1) University of Bologna (Luca Fontanesi, Rita Casadio, Pier Luigi Martelli) and the Department of Biodiversity and Molecular Ecology, Research and Innovation Centre, Fondazione Edmund Mach (Cristiano Vernesi) have established a new research cooperation to analyse copy number variation in different leporid species.
2) The Broad Institute (Federica Di Palma) has established a cooperation with the University of Bologna (Rita Casadio, Pier Luigi Martelli and Luca Fontanesi) to analyse segmental duplications in the rabbit genome.
3) Department of Medical Biochemistry and Microbiology, Uppsala University (Leif Andersson), University of Porto (Nuno Ferrand de Almeida), the Broad Institute (Kerstin Lindblad-Tohas and Federica Di Palma) have established a cooperation to re-sequence the rabbit genome to study the domestication process in this species. Additional contributors are University of Bologna (Luca Fontanesi, Rita Casadio, Pier Luigi Martelli) and INRA (Claire Rogel-Gaillard).
4) The Broad Institute (Federica Di Palma) and INRA (Veronique Duranthon) have established a cooperation to exchange RNA from different rabbit tissues for RNA-seq.
5) University of Porto (Nuno Ferrand de Almeida) and INRA (Claire Rogel Gaillard) have established a collaboration to resequence and annotate the rabbit MHC.

- *The capacity of the Action members to raise research funds.*

Local and/or national funds have been secured to carry out the listed research activities.

III. Previous scientific report(s)

Part II of past periods' reports are to be found here.