EUROPEAN COMMISSION

RESEARCH DIRECTORATE-GENERAL

SP1-Cooperation

Collaborative project

Small or medium-scale focused research project

FP7-KBBE-2009-3

Grant Agreement Number 244956

BEE DOC

BEES IN EUROPE AND THE DECLINE OF HONEYBEE COLONIES

KBBE

SEVENTH FRAMEWORK PROGRAMME

GRANT AGREEMENT No 244956

PROJECT TITLE BEE DOC

Collaborative project

Small or medium-scale focused research project

The **European Union** ("*the Union*"), represented by the **European Commission** (the "*Commission*"),

of the **one part**,

and **MARTIN-LUTHER-UNIVERSITAET HALLE-WITTENBERG,** established in UNIVERSITAETSPLATZ 10, HALLE (Saale), 06099, Germany represented by Martin Hecht, Kanzler or his authorised representative, the *beneficiary* acting as "*coordinator*" of the *consortium* (the "*coordinator*"), ("*beneficiary no. 1*"),

of the **other part**

HAVE AGREED to the following terms and conditions including those in the following annexes, which form an integral part of this *grant agreement* (the "*grant agreement*").

Annex I - Description of Work
Annex II - General conditions
Annex III - Non applicable
Annex IV - Form A - Accession of *beneficiaries* to the *grant agreement*
Annex V - Form B - Request for accession of a new *beneficiary* to the *grant agreement*
Annex VI - Form C - Financial statement per funding scheme
Annex VII - Form D - Terms of reference for the certificate on the financial statements and Form E - Terms of reference for the certificate on the methodology

Article 1 - Accession to the *grant agreement* of the other *beneficiaries*

1. The *coordinator* shall endeavour to ensure that each legal entity identified below accedes to this *grant agreement* as a *beneficiary*, assuming the rights and obligations established by the *grant agreement* with effect from the date on which the *grant agreement* enters into force, by signing Form A in three originals, countersigned by the *coordinator*.

• **QUEEN'S UNIVERSITY BELFAST,** established in University Road, BELFAST, BT7 1NN, United Kingdom represented by Michael Daly, Research Support Officer and/or Pauline McCann, Research Support Officer or their authorised representative ("*beneficiary no. 2*"),

• **SVERIGES LANTBRUKSUNIVERSITET,** established in Arrheniusplan 2C, UPPSALA, 75007, Sweden represented by Helen Lundkvist, Head of Department and/or Ingrid Ragnarsdotter Jajke, Project Support Manager or their authorised representative ("*beneficiary no. 3*"),

• **EIDGENOESSISCHES VOLKSWIRTSCHAFTSDEPARTEMENT,** established in Bundeshaus Ost, BERN, 3003, Switzerland represented by Michael Gysi, Direktor and/or Daniel Guidon, Vizedirektor or their authorised representative ("*beneficiary no. 4*"),

• **INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE,** established in Rue De L'Universite 147, PARIS CEDEX 07, 75338, France represented by Michel Bariteau, President of the INRA Avignon center and/or Yves Foll, Director of the administration unit of the INRA Avignon center or their authorised representative ("*beneficiary no. 5*"),

• **UNIVERSITEIT GENT,** established in SINT PIETERSNIEUWSTRAAT 25, GENT, 9000, Belgium represented by Paul Van Cauwenberge, Rector and/or Luc Moens, Vice-Rector or their authorised representative ("*beneficiary no. 6*"),

• **INSTITUTE OF ORGANIC CHEMISTRY WITH CENTRE OF PHYTOCHEMISTRY - BULGARIAN ACADEMY OF SCIENCES**, established in Acad Georgi Bonchev street bld 9, SOFIA, 1113, Bulgaria represented by Bojidar Tchorbanov, Director and/or Jordan Tsenov, Deputy Director or their authorised representative ("*beneficiary no. 7*"),

• **UMEA UNIVERSITET,** established in UNIVERSITETOMRADET, UMEA, 901 87, Sweden represented by Lars Lustig, University Director or his authorised representative ("*beneficiary no. 8*"),

• **UNIVERSITAET HOHENHEIM,** established in Schloss Hohenheim 1, STUTTGART, 70599, Germany represented by Hans-Peter Liebig, Rector and/or Karlheinz Köller, Prorector for research or their authorised representative ("*beneficiary no. 9*"),

• **AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS,** established in CALLE SERRANO 117, MADRID, 28006, Spain represented by Rafael Rodrigo, President and/or Jose Juan Sánchez-Serrano, Vice-president or their authorised representative ("*beneficiary no. 10*"),

• **Ustav molekularnej biologie Slovenskej akademie vied ,** established in Dubravska cesta 21 , Bratislava , 845 51 , Slovakia represented by Barak Imrich, Director and/or Varcholova Anna, Finance officer or their authorised representative ("*beneficiary no. 11*"),

All the *beneficiaries* together form the *consortium* (the "*consortium*").

2. The *coordinator* shall send to the *Commission* one duly completed and signed Form A per *beneficiary* at the latest 45 calendar days after the entry into force of the *grant agreement*. The two remaining signed originals shall be kept, one by the *coordinator* to be made available for consultation at the request of any *beneficiary*, and the other by the *beneficiary* concerned.

3. Should any legal entity identified above, fail or refuse to accede to the *grant agreement* within the deadline established in the previous paragraph, the *Commission* is no longer bound by its offer to the said legal entity(ies). The *consortium* may propose to the *Commission*, within the time-limit to be fixed by the latter, appropriate solutions to ensure the implementation of the *project*. The procedure established in Annex II for amendments to this *grant agreement* will apply.

4. The *beneficiaries* are deemed to have concluded a *consortium agreement* (the "*consortium agreement*") regarding the internal operation and management of the *consortium*.

Article 2 - Scope

The Union has decided to grant a financial contribution for the implementation of the *project* as specified in Annex I, called *BEES IN EUROPE AND THE DECLINE OF HONEYBEE COLONIES (BEE DOC)* (the "*project*") within the framework of the *SP1-Cooperation* and under the conditions laid down in this *grant agreement*.

Article 3 - Duration and *start date* of the *project*

The duration of the *project* shall be 36 months from 1st March 2010 (hereinafter referred to as the "*start date*").

Article 4 - Reporting periods and language of reports

The *project* is divided into reporting periods of the following duration:

- P1: from month 1 to month 18
- P2: from month 19 to the last month of the *project*.

Any report and deliverable, when appropriate, required by this *grant agreement* shall be in *English*.

behavioural studies on bees with automated video equipment attached to observation hives. The group will collaborate in BEE DOC with one scientist and one technician of the same Unit (UMR 406) working in another team focused on ecotoxicology of the honeybee to investigate interactions between pesticides and other stresses.

Special interest and skills defining unique tasks in network research: Development of microarrays in gene expression, honeybee behaviour and social regulations, *Varroa* – honeybee relationships, *Varroa* control and bee breeding for *Varroa* tolerance. GC and GC-MS to study and quantify pheromones of the honeybee.

Interest and skills shared with one or several other groups: disease resistance, DNA analysis, genomic analysis, host-parasite interactions, interactions pathogens – pesticides.

Home page for further details: http://www.avignon.inra.fr

6) Ghent University – Laboratory of Zoophysiology **Prof. Dr. Dirk C. de Graaf**

Staff and equipment: The research group is composed of two professors (de Graaf and Jacobs) and one assistant (Danneels) working on insect physiology and pathology, with a strong focus on honeybees. Typically the group has 2-3 PhD and a similar number of MSc students. One full time tenured technician runs a RNA/DNA (RT-PCR, recombinant technology) and protein laboratory (LC, immunoassays). The laboratory is also equipped with a diagnostic unit in a level 2 bio-safety restricted environment, thus permitting the multiplication and manipulation of pathogens of animal risk class level 3. The group runs an experimental apiary with 100 bee hives and has a bee flight room to maintain bees during winter time.

Special interest and skills defining unique tasks in network research: Improvement and harmonization of diagnostic tools based on RNA/DNA fingerprinting techniques.

Interest and skills shared with one or several other groups: DNA analysis, genomic analysis, host-parasite interactions

Home page for further details: http://www.zoofysiologie.ugent.be/

7) Bulgarian Academy of Sciences, Sofia **Prof. Dr. Vassya S. Bankova**

Staff and equipment: The research group is composed of one full professor (Bankova), and three assistant professors (Popova, Trusheva, Petrova) who work on chemical analysis of propolis, isolation and structure elucidation of biologically active secondary metabolites from propolis and plants. Typically, the group has one PhD and one MSc student. The IOCCP has fully equipped state-of-the-art analytical facilities for structural analysis of natural products: 600 MHz NMR, GC-MS, HPLC, high resolution magnetic sector mass spectrometer, fully accessible for the research group.

Special interest and skills defining unique tasks in network research: Study of propolis from different regions of the world: isolation and structure elucidation of new bioactive constituents, development of analytical methods for propolis studies.

Home page for further details: http://srv.orgchm.bas.bg

8) Umeå University and University of Tampere **Prof. Dan Hultmark**

Staff and equipment: The research group in Umeå is presently composed of one full professor (Hultmark), two postdoctoral fellows, three graduate students and one master's student. From 2009 the group will expand with about one postdoctoral fellow and two graduate students in Tampere. The lab in Umeå is part of a centre for genetic model organisms, with a facility for transgenic *Drosophila* and *C. elegans*. From 2009 the centre fuses with the Department of Molecular Biology, which also houses the newly founded Laboratory for Molecular Infection Medicine Sweden (MIMS), part of the Nordic EMBL Partnership for Molecular Medicine. The group has access to platforms for microarray analysis and deep sequencing.

Special interest and skills defining unique tasks in network research: Using the *Drosophila* model to study honeybee resistance genes and pathogens.

Interest and skills shared with one or several other groups: disease resistance, DNA analysis, genomic analysis, host-parasite interactions.