

QUESTIONNAIRE

(*) – mandatory fields

| Details about organisation | |
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| * Organisation name | Institute of Plant Immunity |
| Organisation acronym | |
| * Organisation Activity Type (RES - Research, HE - University, SME - Small and Medium Enterprise, IND - Industry, OTH - Other) | Research |
| * Keywords of main research areas | Plant Diseases; Molecular Biology Diagnostics |
| * Head of organisation (first name, family name) | Guram Memarne |
| * Post code | 6200 |
| * Country | Georgia |
| * City | Kobuleti |
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| * Description of organization and its research achievements for the last five years (~ 5000 signs) |
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| <p>Institute of Plant Immunity was established on May 22, 1991 by development from the laboratories and expertise of an important branch of All-Union Research Institute of Phytopathology which was originally founded in Kobuleti in 1959. Institute structure is as follows: Laboratory of Phytopathology; Laboratory of Genetic's Resistance; Laboratory of Molecular Biology. Total 36 staff.</p> <p>The goal of the Plant Immunity Institute is to provide the science of plant protection from different economically important diseases by means of plant resistance improvement and other environmentally safe methods. Improving knowledge on these diseases by using modern molecular biology methods will develop a platform for food and biological security for the country.</p> <ul style="list-style-type: none"> • MAIN ACTIVITIES: <p>Survey of Plant Diseases;</p> <p>Population genetic - determining the range of virulence genes of the cereal pathogens and direction of current changes in population; providing highly cost effective opportunity to determine the risk presented by pathogen races.</p> <p>Immunological - Evaluating cereal germplasm to different pathogens under natural and artificial infection, identification of new sources of resistance for recommendation in breeding programs.</p> <p>Molecular biology - Introducing and using new molecular biology methods for improved plant diseases diagnosis and screening of virulence markers and assessment of the genetic diversity of pathogens.</p> <p>National culture collection – includes the panel of plant pathogens, mainly fungi important both nationally and regionally.</p> <p>As result of projects implementation : the phytosanitary monitoring of cereal fields and other important crop plantations to assess the risks presented by wheat rusts and other crop diseases was carried out; a genetic-population study of wheat rust pathogens in Georgia to determine their range of virulence genes and field tests of different origin breeding materials were taken place; knowledge of the epidemiology of the diseases was improved; effective genes of resistance for recommendations in industry and breeding programmes were identified; a national culture collection of fungal phytopathogens was established; appropriate modern diagnostic and molecular methods were introduced.</p> <p>This combination of goals and objectives enhanced the current skills base, equipped the institute to further contribution to sustainable crop production in the region, and built a platform for sustainable funding.</p> <p>The institute could manage to collaborate with other institutes in Georgia to pass on the skills it developed</p> |

during the project, facilitated many aspects of crop production in Georgia. It provided the scientific basis for improved plant breeding and facilitated improvements for control of quarantine diseases and diseases of novel and established crops.

| | Contact Information |
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| * Contact person (first name, family name) | Zoia Sikharulidze |
| * Department / Laboratory | Genetics of Immunity |
| * Position | Head of scientific council |
| * Qualification and research experience | PhD, Plant Pathology |
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| International co-operation / Participation in EU RTD programmes or other bilateral / multilateral actions |
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| INTAS, TACIS, TEMPUS, COST, EUREKA, other RTD programmes (please specify programme/s, project title/s and year/s) |
| <p>1. ICAR Project “Virulence of yellow and brown rust pathogens and evaluation of wheat varieties”- 2004-2006</p> <p>2. ISTC Project “Improving Plant Health in Georgia, through improving disease resistance of wheat, increased knowledge of quarantine diseases and establishment of a National Culture Collection” -2004-2008</p> |

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| | * Please, use “X” to indicate the scientific area/s of your potential project |
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|---------------------------|---|
| CHEMISTRY | |
| SOCIAL AND HUMAN SCIENCES | |
| ECONOMIC SCIENCES | |
| ENGINEERING SCIENCE | |
| ENVIRONMENT | |
| AGRICULTURE AND FOOD | X |
| HEALTH | |
| MATHEMATICS | |
| INFORMATION SCIENCE | |
| PHYSICS | |
| NANOTECHNOLOGIES | |
| ENERGY | |
| TRANSPORT | |
| SPACE | |

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| * Summary of potential research project envisaged hosting of European researcher for the period of between 1 and 2 years |
| <p>Project 1 “PCR-based detection of polymorphism of clones of wheat rusts or wheat spot diseases”</p> <p>Project 2 “Characterization and authentication of the Cereal Genetic Resources using DNA molecular technique”</p> <p>We have National Culture Collection of fungal phytopathogens, Bank of cereal germplasm and new laboratory of Molecular Biology. Some staff is trained and introduces a modern PCR method.</p> |

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| | Please, confirm your agreement on data publication and dissemination |
| I agree with the publication of the data on the web-site http://www.inco-ecca.net , and dissemination among Mobility National Contact Points of the EU MS and AC (YES / NO) | Yes |
| Date | 4 December, 2008 |