DIPARTIMENTO DI BIOTECNOLOGIE, CHIMICA E FARMACIA

SHEET FOR PUBLIC SELECTION NOTICE UPON QUALIFICATIONS AND INTERVIEW FOR THE AWARD OF 2 RESEARCH GRANTS (EX-ART 22 L 240/2010)

Annex No _____

Type of grant	**2 RESEARCH GRANT LETTER** b)
Department	Biotechnology Chemistry and Pharmacy
CUP	……
Grant amount (in compliance with the minimum set by MIUR[1])	30.000,00 (overall gross)/year (per grant)
Availability of budget and allocation grant costs, including employer charges	……..
Duration (in months)	24
Renewable	Renewable
Number of positions	2
Scientific Director	Gabriella Tamasi
Scientific Disciplinary sector/s	CHIM/01
Competitive exam sector	03/A1 (Chimica Analitica)
Research field[2]	Chemistry
Research project	AGRITECH Spoke 9: New technologies and methodologies for traceability, quality, safety, measurements and certifications to enhance the value and protect the typical features of the agri-food supply chains

[1] Indicate the total amount including the charges to be borne by the employer, and the gross amount to be paid.

[2] For the purpose of publication on the European portal, indicate one of the following fields: Agricultural sciences; Anthropology; Architecture; Arts; Astronomy; Biological sciences; Chemistry; Communication sciences; Computer science; Criminology; Cultural studies; Demography; economics; Educational sciences; Engineering; Environmental science; Ethics in Health sciences; Ethics in natural sciences; Ethics in physical sciences; Ethics in social sciences; Geography; History; Information science; Juridical sciences; Language sciences; Literature; Mathematics; Medical sciences; Neurosciences; Pharmacological sciences; Philosophy; Physics; Political sciences; Psychological sciences; Religious Sciences; Sociology; Technology; Other

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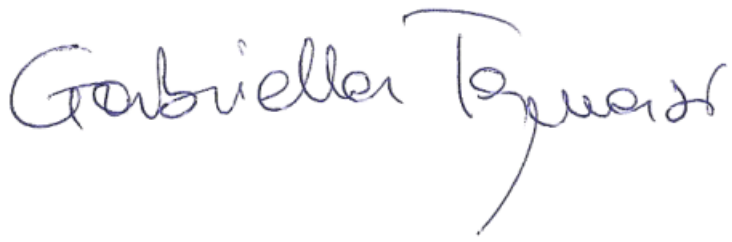
Acronym for research project	PNRR AGRITECH SPOKE 9 (WP1, Task 9.1.1 and Task 9.1.2)
Location(s) of the research activity	Department of Biotechnology Chemistry and Pharmacy, University of Siena
Project title (ITA)	*Integrazione di nuovi dati e metadati per l'origine geografica: metodi e protocolli chimici per la qualità e la tracciabilità dei prodotti alimentari e modelli da analisi multivariata di dati sperimentali*
Project title (ENG)	*Integrating new data and metadata on geographical origin: Chemical methods and protocols for quality and traceability of food products & multivariate modelling analysis of experimental data*
Description of the research project/topic	*The objective of the grant is to develop and validate a combined experimental-computational approach for the analysis of the geographical origin of agricultural and agro-industrial products. Methods will be developed for integrating experimental results obtained with the use of as many measurement techniques as possible, used for the analysis of the specific agricultural matrix, with the aim of significantly increasing the degree of reliability of the determination by minimizing the margin of error on the territorial location of the products. With similar flexibility, computational methods for analyzing experimental data will be used. The set of computational methods (multivariate analysis or chemometric analysis) will allow the use of specific and suitable interpretative algorithms for the analysis of different experimental data sets.*
Activities entrusted to the research fellow (ITA)	*L'assegnista si occuperà dell'ottimizzazione e validazione di metodi sperimentali per la caratterizzazione di campioni dalle filiere vitivinicola (suolo, foglie, uva e vino a fine fermentazione alcolica e malolattica) e olivicola (suoli, foglie, olive/drupe e olio EVOO). Si occuperà della fase di stabilizzazione dei campioni al momento della consegna in laboratorio e di ottimizzare metodi di pre-trattamento per la determinazione analitica di parametri quali metalli, metaboliti secondari, rapporto isotopico di elementi leggeri e di metalli: Le tecniche strumentali maggiormente utilizzate saranno: ICP-MS, HPLC/MS-Orbitrap, NMR, fluorescenza (EEM). I dati sperimentali saranno poi trattati mediante metodi di analisi multivariata, opportunamente scelti, al fine di fornire modelli affidabili e a basso grado di incertezza per la caratterizzazione geografica dei prodotti.*

Activities entrusted to the research fellow (ENG)	*The grant holder will be responsible for the optimization and validation of experimental methods for the characterization of samples from the wine-growing (soil, leaves, grapes and wine at the end of alcoholic and malolactic fermentation) and olive-growing (soil, leaves, olives/drupes and EVO oil) chains. He/she will take care of the samples stabilization and will optimize pre-treatment methods for the analytical determination of parameters such as metals, secondary metabolites, isotopic ratios of light elements and metals: The most used instrumental techniques will be: ICP-MS, HPLC/MS-Orbitrap, NMR, fluorescence (EEM). The experimental data will then be treated using appropriate multivariate analysis methods, to provide reliable models with a low degree of uncertainty for the geographical characterization of the products.*
Maximum number of evaluable publications	*2*
Access Requirement	*Master's Degree/Specialist Degree/Old system degree in Chemistry, Master's Degree/Specialist Degree/Old system degree in Pharmaceutical Chemistry and Technology (CTF)*
Preferred qualification	*PhD (or equivalent obtained abroad) or PhD student at the last year. Level of knowledge of the English language, postgraduate research grants or other work/educational experiences, presentations at national and international conferences/schools, participation in training courses on topics related to the project activity*
Additional qualifications and requirements[3]:	---

The Scientific Director
Prof. Gabriella Tamasi



[3] For example (for guidance only): *Possible foreign language (s) requested; Advanced level of written and spoken knowledge of one or more foreign languages; Work and/or training experience at public and/or private research facilities; Experiences in the international field*