ATTACHMENT No. 1

Authorization Resolution of the Senate dated 12/11/2024

Authorization Resolution of the Board of Directors dated 28/11/2024

No. 1

GSD	11/PSIC-04 (formerly S.C. 11/E4)
S.S.D.	PSIC-04/A (formerly M-PSI/07)
Title in Italian	*Sviluppo di un modello di intervento per madri vulnerabili durante il periodo post-natale: Fattibilità di un intervento breve di videofeedback sulle interazioni madre-figlio nel contesto della nascita prematura.*
Title in English	Development of an Intervention Model for Vulnerable Mothers During the Postnatal Period: Feasibility of a Short Video Feedback Intervention on Mother-Child Interactions in the Context of Premature Birth.
TUTOR / SCIENTIFIC SUPERVISOR	**Professor Alessandra Babore**
Activity Location	Department of Psychology
Description of the Research Grant in Italian	Gli obiettivi dello studio, rivolto a madri di bambini nati pretermine, possono essere così riassunti: 1) sviluppare un modello di intervento breve online attraverso videofeedback basato sulla mentalizzazione, durante il periodo postnatale; 2) esaminare la fattibilità dell'intervento; 3) indagare l'effetto dell'intervento, analizzando la funzione parentale riflessiva e la sensibilità materna, i livelli materni di depressione e di ansia, lo stress genitoriale, la qualità del rapporto madre-figlio e lo sviluppo socio-emotivo del bambino. Dal gruppo generale di coloro che aderiranno, verranno costituiti due gruppi, uno che riceverà il trattamento specifico basato sulla mentalizzazione (intervention group, IG) e uno di controllo (control group, CG). Il programma dell'IG comprenderà sessioni quindicinali svolte online per sostenere la genitorialità, la mentalizzazione e il rapporto madre-bambino a partire dal 3º mese del bambino e fino all'8° mese.
Description of the Research Grant in English	The objectives of the study, targeting mothers of preterm infants, can be summarized as follows:

	1)To develop a brief online intervention model through mentalization-based videofeedback during the postnatal period; 2)To examine the feasibility of the intervention; 3)To investigate the effects of the intervention by analyzing reflective parental functioning, maternal sensitivity, maternal levels of depression and anxiety, parental stress, the quality of the mother-child relationship, and the child's socio-emotional development. From the general group of participants, two subgroups will be formed: one receiving the specific mentalization-based treatment (intervention group, IG) and a control group (CG). The IG program will include bi-weekly online sessions to support parenting, mentalization, and the mother-child relationship, starting from the infant's third month up to the eighth month.
Duration	**X Annual x Renewable** □ Multi-year for a duration of _____ years
Annual Cost	€ 24.000
Funding	PRIN 2022
UGOV Project Name	PRIN2022BABORE
UGOV Project CUP	**D53D23009400006**
Participation Requirements	Master's Degree, Specialized Degree, or Equivalent Degree in Psychology
Additional Curricular Requirements Beyond the Second-Level Degree (Art. 2 of the Call)	- Ph.D. Degree; - Previous work experience relevant to the scope of this call; - Scientific publications in national and international journals in the area of parenting and parent-child relationships in at-risk conditions; - Previous research experience in the field of dynamic psychology.
Expected Outcomes	Continuous and well-received participation by parents is expected, with a low dropout rate, facilitated by the flexibility of the intervention due to its online format. Regarding the effect of the intervention, it is hypothesized that in the post-intervention phase (T1) and at follow-up (T2, four months after the intervention's conclusion), there will be improvements in maternal reflective parental functioning, maternal sensitivity, the quality of the mother-child relationship, and the child's socio-emotional development. Additionally, the intervention is expected to reduce maternal depression, anxiety, and parental stress. It is hypothesized that significant differences will emerge between the two groups (IG and CG) in the variables under study. Finally, the study aims to identify risk and protective factors, also taking into account paternal variables.

No. 2

Departmental Research Line	PRIN 2022: Combining magnetic resonance imaging and optical spectroscopy to map microvascular function and oxygen metabolism in healthy and diseased brain.
GSD	02/PHYS-06 (formerly S.C. 02/D1) 06/MEDS-12 (formerly S.C. 06/D6) 09/IBIO-01 (formerly S.C. 09/G2)
S.S.D.	SSD PHYS-06/A (formerly FIS/07) MEDS-12/A (formerly MED/26) IBIO-01/A (formerly ING-INF/06)
Title in Italian	*Integrazione multimodale di risonanza magnetica e spettroscopia nel vicino infrarosso per quantificare lo stato cerebrovascolare e il metabolismo ossidativo nel cervello.*
Title in English	Combining magnetic resonance imaging and optical spectroscopy to map microvascular function and oxygen metabolism in healthy and diseased brain.
TUTOR / SCIENTIFIC SUPERVISOR	**Professor Richard Wise**
STRUCTURE where the activity will be carried out	Department of Neurosciences, Imaging, and Clinical Sciences
Description of the Research Grant in Italian	Le disfunzioni energetiche e cerebrovascolari sono presente in molte malattie cerebrali comuni, tra cui demenza, ictus e condizioni neuroinfiammatorie. La ricerca mira a sviluppare misure di risonanza magnetica (RM) non invasive della funzione cerebrovascolare e del consumo di ossigeno metabolico cerebrale basate su approcci fMRI calibrati. Il lavoro comprenderà l'ottimizzazione dell'acquisizione dei dati RM e lo sviluppo di metodi di analisi. Valideremo le misure di RM confrontandole con la spettroscopia ottica diffusa (spettroscopia nel vicino infrarosso nel dominio del tempo e spettroscopia di correlazione diffusa). L'integrazione della spettroscopia ottica con la RM aiuterà a valutare la validità dei modelli biofisici adottati nella RM. I metodi di RM e ottica saranno confrontati in volontari sani e in pazienti con sclerosi multipla, nei quali è stata dimostrata una diffusa disfunzione energetica. Il progetto sarà svolto in collaborazione con il gruppo di ricerca di spettroscopia ottica del Politecnico di Milano. È richiesta una buona conoscenza della risonanza magnetica e delle tecniche di programmazione scientifica/analisi dei dati.
Description of the Research Grant in English	Energetic and cerebrovascular dysfunction accompany many common brain diseases including dementia, stroke and neuroinflammatory conditions. The research aims to develop non-invasive MRI measures of cerebrovascular function and cerebral metabolic oxygen consumption based on calibrated fMRI approaches. The work will include optimisation of MRI data acquisition and development of analysis methods. We will validate the MRI measurements by comparing them with diffuse optical spectroscopy (Time-Domain Near-Infrared Spectroscopy and Diffuse

	Correlation Spectroscopy). Integration of the optical spectroscopy with MRI will help to assess the validity of the biophysical models adopted in MRI. The MRI and optical methods will be compared in healthy volunteers and patients with Multiple Sclerosis, in which widespread energetic dysfunction has been shown. The project will be performed in collaboration with the optical spectroscopy research group at the Milan Polytechnic. A good knowledge of MRI and scientific programming / data analysis techniques is requested.
Duratation	**X Annual** **X Renewable**
Annual Cost	€ 32.000
Funding	Project: Combining magnetic resonance imaging and optical spectroscopy to map microvascular function and oxygen metabolism in healthy and diseased brain. Acronym: MRIOS Code: 2022MHMSSJ
UGOV Project Name	PRJ-0294
UGOV Project CUP	TO BE ACQUIRED
Participation Requirements	Master's Degree in PHYSICS (LM-17) Master's Degree in COMPUTER SCIENCE (LM-18) Master's Degree in ENGINEERING (ANY FIELD, FROM LM-20 TO LM-35) Master's Degree in MATHEMATICS (LM-40) Master's Degree in MATHEMATICAL-PHYSICAL MODELING FOR ENGINEERING (LM-44) Master's Degree in BIOLOGY (LM-06) Master's Degree in MEDICAL, VETERINARY, AND PHARMACEUTICAL BIOTECHNOLOGY (LM-09) Master's Degree in MEDICINE AND SURGERY (LM-41) Master's Degree in PSYCHOLOGY (LM-51) Master's Degree in CHEMICAL SCIENCES (LM-54) Master's Degree in COGNITIVE SCIENCES (LM-55) Master's Degree in PREVENTIVE AND ADAPTED MOTOR ACTIVITIES (LM-67) Master's Degree in SPORTS SCIENCES AND TECHNIQUES (LM-68) Master's Degree in STATISTICAL SCIENCES (LM-82) Master's Degree in HEALTH PROFESSIONS OF REHABILITATION SCIENCES (LM/SNT02) Master's Degree in HEALTH PROFESSIONS OF TECHNICAL SCIENCES (LM/SNT03) or equivalent Specialist Degrees or old-system Degrees.

No. 3

Departmental Research Line	Behavior of Agents and Microfoundations of Macroeconomics
GSD	13/ECON-01 (formerly S.C. 13/A1)
SSD	ECON-01/A (formerly SECS-P/01)
Project Title in Italian	*Modelli quantitativi per migliorare la sostenibilità nella produzione di grano in Italia*
Project Title in English	Quantitative Models for Enhancing Sustainable Wheat Production in Italy
TUTOR / SCIENTIFIC SUPERVISOR	**Prof. Gianfranco Giulioni**
Activity Location	**Department of Socio-Economic, Managerial, and Statistical Studies**
Description of the Research Grant in Italian	Ridurre l'impatto ambientale della produzione alimentare rappresenta una delle maggiori sfide per aumentare la sostenibilità. Il progetto di ricerca si concentra sul potere delle politiche nel fornire incentivi economici per le aziende agricole che passano da meno a più tecniche sostenibili di produzione del grano sia in condizioni economiche ordinarie che in tempi di crisi. La ricerca affronta questo problema in un contesto di dinamiche complesse con interazione socio-economica e ambientale. Per affrontare la complessità del mondo reale, verrà elaborato un modello basato su agenti per il sistema di produzione del grano in Italia. Questo modello sarà interfacciato con un modello già esistente del mercato internazionale del grano. In questo modo, si terrà conto in modo endogeno dell'interazione tra le scelte degli agricoltori e i prezzi internazionali. Nell'espletamento del progetto di ricerca verranno esplorati diversi scenari in cui le politiche tradizionali vengono progressivamente sostituite da politiche verdi alternative. L'integrazione del modello elaborato per l'Italia nel contesto internazionale consentirà una valutazione di come gli shock internazionali influenzeranno la sostenibilità del sistema Italia. In effetti, il contesto globale in cui operano le autorità pubbliche cambia rapidamente, richiedendo nuovi strumenti e approcci per ridurre gli effetti collaterali negativi di eventi imprevisti e improwisi come quelli che si sono verificati di recente, ad esempio a causa del conflitto Russia-Ucraina, anche con effetti rilevanti su molte altre commodities, sul costo dell'energia e dalla maggior parte degli input, compresi prodotti chimici e

	fertilizzanti e di conseguenza sul prezzo di vendita dei prodotti agricoli. Verrà elaborato un modello dinamico open-source che integra il sociale, l'economico e l'ambiente e sarà di interesse per diversi stakeholder: 1) i policy makers italiani che avranno uno strumento per la valutazione della sibile evoluzione i indicatori di sostenibilità nella produzione di grano nell'ambito di diverse politiche; 2) le istituzioni finanziarie che potrebbero essere interessate ad utilizzare i risultati del progetto per promuovere la sostenibilità attraverso la finanza verde; 3) i decisori politici e le istituzioni italiane che potrebbero trarre vantaggio dall'esplorazione di come prevenire gli effetti economici negativi dovuti a shock globali avversi, vale a dire aumentare la resilienza mantenendo un elevato standard di sostenibilità ambientale. La ricerca prevede inoltre di implementare l'analisi del ciclo di vita (LCA) della produzione di grano per avere delle metriche con le quali misurare l'impatto ambientale delle differenti scelte di politica. Il gruppo di ricerca svilupperà e documenterà i modelli computazionali e l'analisi LCA per renderli liberamente disponibili alla comunità scientifica per possibili future applicazioni ad altri paesi o merci.
Description of the Research Grant in English	Reducing the environmental impact of food production represents one of the greatest challenges for increasing sustainability. This project focuses on the role of policies in providing economic incentives for farms to switch from less sustainable to more sustainable wheat production techniques, either in stable economic periods or during times of crisis. The project addresses this issue within a framework of complex socio-economic and environmental interaction dynamics. To handle real-world complexity, the project will develop an agent-based model for the wheat production system in Italy. This model will be integrated with an existing tool capable of managing international wheat markets. In this way, the two-way interaction between farmers' choices and international prices will be endogenously accounted for. A significant gap in the current state of the art in agricultural decision-making lies in the poor integration of models within a global context. This project will explore various scenarios in which traditional policies are progressively replaced by alternative green policies in Italy, starting with periods of stability (i.e., assuming no significant shocks impact both the domestic and global systems). The project's integration into the international context enables an evaluation of how adverse international shocks could affect the sustainability of the Italian system.

	Indeed, the global context in which public authorities operate is rapidly evolving, requiring new tools and approaches to mitigate the negative side effects of unexpected and sudden events, such as those characterizing the present historical period. For instance, the Russia-Ukraine war has caused significant disruptions, not only in energy costs but also in the prices of agricultural inputs like fertilizers and chemicals, which in turn have affected the selling prices of agricultural commodities. The model developed in this project will serve as an example of an open-source dynamic model that integrates social, economic, and environmental dimensions. It is designed to assist several stakeholders: 1) Italian policymakers, who will have a tool to evaluate the potential evolution of sustainability indicators in wheat production under different policies; 2) Financial institutions, which could use the project's results to promote sustainability through green finance; 3) Italian policymakers and institutions, who could benefit from exploring strategies to prevent negative economic impacts resulting from global shocks, thereby increasing resilience while maintaining high standards of environmental sustainability. Additionally, the research plans to implement a Life Cycle Analysis (LCA) of wheat production to establish metrics for measuring the environmental impact of various policy options. The research team will develop and document the computational models and LCA analyses, making them freely available to the scientific community for potential applications in other countries or for other commodities.
Duration	**X Annual** **X Renewable**
Annual Cost	€ 26.000,00
Funding	PRIN2022
UGOV Project Name	Evaluation of policies for enhancing sutainable wheat production in Italy. ECOWHEAT
UGOV project CUP	**D53D23006260006**
Participation Requirements	Master's Degree or "vecchio ordinamento" (old system degree) related to economic, statistical, computer science, or STEM disciplines (Scientific, Technological, Engineering, and Mathematical).
Additional Curricular Requirements Beyond the Second-Level	- Doctoral Degree (PhD) with a dissertation conducted within the curricular scope of scientific-disciplinary sectors related to Macrosector 13/A, with particular emphasis on 13/A1, 13/A2, and 13/A4;

Degree (Art. 2 of the Call for Applications)	- Specialized Publications in relevant fields; - Research/Training Scholarships awarded for professional development activities; - Periods Abroad at foreign academic institutions, with certified experiences in training, advanced studies, or research, even in the absence of contracts, scholarships, or assignments; - Computer Skills: knowledge of programming languages, data analysis software, collaborative work techniques, and version control systems.
Expected Outcomes	- Scientific Publications related to the research project; - Organization and/or Participation in scientific conferences, study days, seminars, or workshops, including presentations on topics connected to the research project.

No. 4

Departmental Research Line	Synthesis and Study of Nanostructured Materials for Controlled Drug Delivery and Electrochemical Energy Storage
GSD	03/CHEM-02 (formerly S.C. 03/A2)
S.S.D.	CHEM-02/A (formerly CHIM/02)
Title in Italian	*Materiali 2D con eterostrutture di Van der Waals per nuovi concetti di accumulo di energia*
Title in English	2D Materials with Van der Waals Heterostructures for New Energy Storage Concepts
TUTOR /SCIENTIFIC SUPERVISOR	**Professor Stefania Ferrari**
STRUCTURE where the activity will be carried out	– Department of Pharmacy
Description of the Research Grant in Italian	Studio dell'intercalazione di metalli alcalini in materiali 2D Van der Waals per applicazioni energetiche. Verranno effettuati test elettrochimici su materiali idonei selezionati per determinare le caratteristiche elettrochimiche di semicelle di Na (e Li). I meccanismi elettrochimici durante la carica-scarica saranno studiati sistematicamente per valutare le reazioni che si verificano durante la ciclazione galvanostatica.
Description of the Research Grant in English	Study of Alkali Metal Intercalation in 2D Van der Waals Materials for Energy Applications. Electrochemical tests will be conducted on selected suitable materials to determine the electrochemical characteristics of Na (and Li) half cells. The electrochemical mechanisms occurring during charge-discharge cycles will be

	systematically studied to evaluate the reactions taking place during galvanostatic cycling.
Duration	**X Annual X Renewable**
Annual Cost	€ 36.000
Funding	PRIN 2022
UGOV Project Name	2D van der Waals heterostructures FoR nOvel coNcepTs In EneRgy Storage (2D-FRONTIERS)
UGOV Project CUP	**D53D23002170006**
Participation Requirements	Master's Degree in a scientific area (belonging to the fields of Chemistry, Pharmaceutical Sciences, Physics, Chemical Engineering, Materials Engineering, or related disciplines) or equivalent Specialist Degree or pre-reform Degree (vecchio ordinamento).
Additional Curricular Requirements Beyond the Second-Level Degree (Art. 2 of the Call for Applications)	-PhD Degree; -Publications and Other Research Outputs; -Specialization Diplomas and certificates of attendance for post-graduate advanced training courses; -Other Relevant Titles related to professional activities, such as holding contracts, scholarships, or assignments at national or international research institutions.
Expected Outcomes	At least one scientific publication.

No. 5

Departmental Research Line	
GSD	12/GIUR-06 (formerly S.C. 12/D1)
S.S.D.	GIUR-06/A (formerly IUS/10)
Title in Italian	*La tutela del cittadino da parte di una nuova P.A., più efficiente, responsabile e inclusiva.*
Title in English	The Protection of Citizens by a New Public Administration: More Efficient, Responsible, and Inclusive
TUTOR /SCIENTIFIC SUPERVISOR	**Professor Vera Fanti**

STRUCTURE where the activity will be carried out	Department of Legal and Social Sciences
Description of the Research Grant in Italian	I mutamenti e la continua evoluzione della P.A. sollevano problemi nuovi in tema di effettività della tutela dei cittadini. Per questo il giudice amministrativo ha progressivamente ampliato le ipotesi in cui la P.A. possa essere ritenuta responsabile dei danni arrecati: la tecnica della chance e la tutela dell'affidamento si muovono in questo senso, così come anche la responsabilità in caso di illegittima decisione algoritmica o di scelte non corrette adottare in ambito sanitario. Per questo, v'è da chiedersi se l'attuale disciplina normativa di riferimento sia sufficiente a garantire una tutela effettiva dei privati. Esaminare la consistenza della normativa in questione è fondamentale per comprendere se l'ordinamento sia in grado di assicurare un equilibrio tra le esigenze di efficienza della P.A. e la necessità di garantire giustizia ai cittadini danneggiati.
Description of the Research Grant in English	The changes and ongoing evolution of Public Administration (P.A.) raise new issues regarding the effectiveness of citizen protection. In response, administrative courts have progressively expanded the cases in which the P.A. can be held liable for damages caused. Concepts such as the loss of chance and the protection of legitimate expectations align with this evolution, as does the recognition of liability in cases of unlawful algorithmic decisions or incorrect choices made in the healthcare sector. This raises the question of whether the current legal framework is adequate to ensure effective protection for individuals. Assessing the robustness of this regulatory framework is essential to determine whether the legal system is capable of striking a balance between the P.A.'s need for efficiency and the imperative to deliver justice to citizens who have suffered harm.
Duration	**X Annual** **X Renewable**
Annual Cost	€ 24.500
Funding	€. 12.500,00 allocated from the Department's funds; €. 12.000,00, provided as co-financing under the PRIN Project titled: "Artificial Administrative Intelligence for Territorial Equality. Operative Research on the Public Interest and the Protection of Persons in the Face of the Evolutions of the Digital Era."
UGOV Project CUP	**D23C24000590005** **D53D23007290006**
Participation Requirements	Law Degree (LM/01, 22/S) or an equivalent degree obtained under the regulations in force prior to Ministerial Decree 509/99.
Additional Curricular Requirements Beyond the Second-Level Degree (Art. 2 of the Call for Applications)	- PhD Degree; - Scientific Publications related to the subject of the research grant; - Participation in Journal Committees and research groups; - Teaching Activities;

	- Conference Presentations; - Periods Abroad.
Expected Outcomes	The research fellow will be required to: - Analyze the legislation and jurisprudential developments regarding the liability of public administration. - Evaluate the influence of EU legislation and jurisprudence on this topic. - Examine specific cases of liability in particular sectors (e.g., the exercise of power by a commissario ad acta, liability in healthcare, unlawful algorithmic decisions, etc.). At the conclusion of the research activities, the fellow must determine whether the current system of public administration liability is capable of ensuring full and effective protection for citizens who have been harmed. If deficiencies are identified, they must assess potential strategies for intervention to make the (innovated) administration more responsible and inclusive.

No. 6

Departmental Research Line	Integrated Transcultural Educational Synergy in Health Sciences
GSD	11/PSIC-01 (formerly S.C. 11/E1)
S.S.D.	PSIC-01/B (formerly M-PSI/02)
Title in Italian	*La neuropsicologia cross-culturale: uno studio in Italia e in Etiopia*
Title in English	Cross-Cultural Neuropsychology: a Study in Italy and Ethiopia
TUTOR /SCIENTIFIC SUPERVISOR	**Professor Giorgia Committeri**
STRUCTURE where the activity will be carried out	Department of Psychology
Description of the Research Grant in Italian	L'assegnista si occuperà di coordinare uno studio scientifico cross-culturale in ambito neuropsicologico mediante l'utilizzo di una piattaforma di serious games per la riabilitazione cognitiva da adattare al contesto etiope. All'interno del progetto l'assegnista coordinerà progetti di collaborazione scientifica e formativa tra l'università G. D'Annunzio e l'Università di Addis Abeba volti a condividere buone prassi di ricerca e formazione avanzata.
Description of the Research Grant in English	The research fellow will coordinate a cross-cultural scientific study in the field of neuropsychology using a serious games platform for cognitive rehabilitation, which will be adapted to the Ethiopian context. As part of the project, the fellow will oversee collaborative

	scientific and educational initiatives between the G. D'Annunzio University and Addis Ababa University. These initiatives aim to share best practices in research and advanced training.
Duration	X Annual X Renewable
Annual Cost	€ 25.000
Funding	Project: ITESHS
UGOV Project Name	
UGOV Project CUP	**D81I24000270006**
Participation Requirements	Master's Degree in Psychology (LM-51 or equivalent) or equivalent Specialist Degree or pre-reform Degree (vecchio ordinamento).
Additional Curricular Requirements Beyond the Second-Level Degree (Art. 2 of the Call for Applications)	Training and Research Expertise in Neuropsychology
Expected Outcomes	The research will allow the study of cross-cultural differences between Italy and Ethiopia in the field of neuropsychological rehabilitation, strengthening collaboration between the two countries and contributing to the existing literature on the subject.

No. 7

Departmental Research Line	Pharmaceutical-Technological Applications
GSD	03/CHEM-08 (formerly S.C. 03/D2)
SSD	CHEM-08 (formerly CHIM/09)
Title of the Project in Italian	Sviluppo di nuove formulazioni di acido ialuronico contenenti derivati monoterpenoidi per il trattamento e la rigenerazione dei tessuti delle infezioni cutanee causate da batteri resistenti agli antibiotici.
Title of the Project in English	Development of New Hyaluronic Acid Formulations Containing Monoterpenoid Derivatives for the Treatment and Regeneration of Tissues Affected by Skin Infections Caused by Antibiotic-Resistant Bacteria.
TUTOR /SCIENTIFIC SUPERVISOR	**Professor Antonio Di Stefano**
STRUCTURE where the activity will be carried out	Department of Pharmacy

Description of the Research Grant in Italian	Il vincitore dell'assegno si dedicherà a sviluppare la tematica come da oggetto del bando, con le finalità specifiche di sviluppare nuove formulazioni ad attività antimicrobica.
Description of the Research Grant in English	The successful candidate for the research grant will focus on developing the topic outlined in the call for applications, with the specific objective of creating new formulations with antimicrobial activity.
Duration	**X Annual X Renewable**
Annual Cost	€ 24.400,00
Departmental Funding	€ 24.400,00 PRIN 2022 - Professor Ivana Cacciatore
UGOV Project Name	-
UGOV Project CUP	**D53C24004580006**
Participation Requirements	Master's Degree in Pharmacy and Industrial Pharmacy, Master's Degree in Biology, Master's Degree in Medical, Veterinary, and Pharmaceutical Biotechnology, or equivalent.
Additional Curricular Requirements Beyond the Second-Level Degree (Art. 2 of the Call for Applications)	PhD in Biomolecular and Pharmaceutical Sciences or Equivalent Knowledge of Basic Formulation Techniques
Expected Outcomes	3 Publications in Impact-Factor Journals

No. 8

Departmental Research Line	PNRR-MCNT2-2023-12377068
GSD	06/MEDS-11 (formerly 06/D5)
S.S.D.	MEDS-11/A (formerly MED/25)
Title in Italian	*Confrontare l'efficacia di trattamenti avanzati per la depressione resistente: psilocibina non psichedelica e neuromodulazione a target personalizzato.*
Title in English	Comparing the Efficacy of Advanced Treatments for Treatment-Resistant Depression: Non-Psychedelic Psilocybin and Personalized Target Neuromodulation
TUTOR /SCIENTIFIC SUPERVISOR	**Professor Giovanni Martinotti**

STRUCTURE where the activity will be carried out	Department of Neurosciences, Imaging, and Clinical Sciences
Description of the Research Grant in Italian	Questo progetto affronta la depressione resistente al trattamento (TRD), una condizione che non risponde alle terapie convenzionali, esplorando due interventi innovativi: una forma non psichedelica di psilocibina e la stimolazione magnetica transcranica accelerata (rTMS) personalizzata. L'obiettivo è comprendere i meccanismi d'azione di questi trattamenti, il loro effetto sulle reti cerebrali legate alla depressione e ottimizzarne l'uso clinico. Si prevede di confrontare la loro efficacia e identificare i profili dei pazienti più adatti per ciascun intervento, colmando infine il divario tra ricerca e pratica per migliorare l'efficacia terapeutica nella TRD.
Description of the Research Grant in English	This project addresses treatment-resistant depression (TRD), a condition unresponsive to conventional therapies, by exploring two innovative interventions: a non-psychedelic form of psilocybin and personalized accelerated transcranial magnetic stimulation (rTMS). The objective is to understand the mechanisms of action of these treatments, their effects on brain networks associated with depression, and to optimize their clinical application. The project aims to: - Compare the efficacy of these interventions. - Identify patient profiles most suited to each treatment. - Bridge the gap between research and practice to enhance therapeutic outcomes in TRD.
Duration	X Annual X Renewable □ Multi-year for a duration of _____ years
Annual Cost	€ 32.400
Funding	€ 32.400 Project: PRIDE Project code: PNRR-MCNT2-2023-12377068
Nome Progetto UGOV	PRJ-0607
CUP Progetto UGOV	**D75E24000230001**
Participation Requirements	Master's Degree in Medicine and Surgery or Master's Degree in Psychology, or equivalent Specialist Degree or pre-reform Degree (vecchio ordinamento).
Additional Curricular Requirements Beyond the Second-Level Degree (Art. 2 of the Call for Applications)	- PhD (Doctorate of Research); - A medical specialization in Psychiatry is considered a preferred qualification. Other preferred qualifications include: • Previous experience in conducting clinical trials. • Research experience in the field of clinical neuromodulation. • Experience in research and analysis of fMRI data.

Expected Outcomes	The successful candidate for this position will be responsible for: - Clinical evaluation and psychometric assessment of patients. - Supervising the administration of neuromodulation treatments. - Managing fMRI data for clinical targeting. - Analyzing clinical data. - Characterizing changes in brain connectivity induced by two advanced antidepressant treatments with radically different mechanisms of action, applied to patients with treatment-resistant depression, and identifying patterns associated with clinical response.

No. 09

Departmental Research Line	PNRR-MCNT2-2023-12377068
GSD	06/MEDS-11 (formerly 06/D5)
S.S.D.	MEDS-11/A (formerly MED/25)
Title in Italian	*Seguire la neurofisiologia durante la cura: correlati EEG durante il trattamento con psilocibina non-psichedelica e neuromodulazione per la depressione.*
Title in English	Monitoring Neurophysiology during Treatment: EEG Correlates in Non-Psychedelic Psilocybin and Neuromodulation Therapy for Depression
TUTOR /SCIENTIFIC SUPERVISOR	**Professor Giovanni Martinotti**
STRUCTURE where the activity will be carried out	Department of Neurosciences, Imaging, and Clinical Sciences
Description of the Research Grant in Italian	Questo progetto affronta la depressione resistente al trattamento (TRD), una condizione che non risponde alle terapie convenzionali, esplorando due interventi innovativi: una forma non psichedelica di psilocibina e la stimolazione magnetica transcranica accelerata (rTMS) personalizzata. L'obiettivo è comprendere i meccanismi d'azione di questi trattamenti, il loro effetto sulle reti cerebrali legate alla depressione e ottimizzarne l'uso clinico. Si prevede di confrontare la loro efficacia e identificare i profili dei pazienti più adatti per ciascun intervento, colmando infine il divario tra ricerca e pratica per migliorare l'efficacia terapeutica nella TRD.
Description of the Research Grant in English	This project addresses Treatment-Resistant Depression (TRD), a condition unresponsive to conventional therapies, by exploring two innovative interventions: a non-psychedelic form of psilocybin and personalized accelerated repetitive transcranial magnetic stimulation (rTMS). The primary goal is to understand the mechanisms of action of these treatments, their effects on brain networks associated with depression, and to optimize their clinical applications. The project aims to:

	- Compare the efficacy of these interventions. - Identify patient profiles best suited to each treatment; - Bridge the gap between research and clinical practice; ultimately enhancing therapeutic effectiveness in TRD.
Duration	**X Annual X Renewable** □ Multi-year for a duration of _____ years
Annual Cost	€ 32.400
Funding	€ 32.400 Progetto PRIDE Project code: PNRR-MCNT2-2023-12377068
UGOV Project Name	PRJ-0607
UGOV Project CUP	**D75E24000230001**
Participation Requirements	Master's Degree in Psychology (LM-51) or equivalent Specialist Degree or pre-reform Degree (vecchio ordinamento).
Additional Curricular Requirements Beyond the Second-Level Degree (Art. 2 of the Call for Applications)	- Proven Experience in participating in research activities within national and international groups in the fields of neuromodulation and neurophysiology; - Data Analysis Skills in EEG (electroencephalography); - Advanced Knowledge of the neurophysiology underlying neuromodulation protocols; - Certified Knowledge in the field of cognitive sciences.
Expected Outcomes	Characterizing Brain Connectivity Modifications Induced by Two Advanced Antidepressant Treatments with Radically Different Mechanisms of Action in Patients with Treatment-Resistant Depression, Identifying Patterns Associated with Clinical Response.

No. 10

Authorizing Resolution of the Board of Administration on 28/11/2024

Departmental Research Line	Analysis of the Molecular Mechanisms of Tumor Development and Progression Related to the PRIN Project: "Structures of Intact and Cleaved Human Trop-2 Elucidate the Molecular Basis of Anti-Cancer Specificity in Trop-2 Modulation.
GSD	05/BIOS-07 (formerly S.C. 05/E1) 06/MEDS-26 (formerly S.C. 06/N1)
S.S.D.	BIOS-07/A (formerly CHIM/02) MEDS-26/A (formerly MED/46)
Title in Italian	*Analisi del signaling indotto da proteolisi tumore-specifica del recettore Trop-2 ed identificazione di nuove signatures molecolari predittive di progressione maligna mediante proteomica e spettrometria di massa.*

Title in English	Analysis of Signaling Induced by Tumor-Specific Proteolysis of the Trop-2 Receptor and Identification of New Molecular Signatures Predictive of Malignant Progression Using Proteomics and Mass Spectrometry.
TUTOR /SCIENTIFIC SUPERVISOR	**Professor Marco Trerotola - Professor Maurizio Ronci**
STRUCTURE where the activity will be carried out	**Department of Medical, Oral, and Biotechnological Sciences**
Description of the Research Grant in Italian	Le attività di ricerca prevedono l'indagine delle reti di signaling molecolare alla base dell'insorgenza e della progressione maligna. Si definirà il ruolo della proteolisi tumore-specifica del recettore transmembrana Trop-2, una glicoproteina di 43 kDa sovraespressa in molti tumori, e che a seguito di un taglio proteolitico subisce un'attivazione funzionaale che stimola la cancerogenesi. Attraverso la definizione della struttura tridimensionale di Trop-2 e lo sviluppo di ligandi specici, si valuterà l'efficacia terapeutica di molecole innovative in modelli cellulari avanzati in vitro, quali sferoidi 3D ed organoidi. Signatures molecolari specifiche in condizioni patologiche potranno inoltre essere identificate madiante analisi proteomica e spettrometria di massa, e forniranno nuovi bersagli terapeutici da utilizzare per la messa a punto di famaci di nuova generazione.
Description of the Research Grant in English	The research activities involve investigating the molecular signaling networks underlying tumor onset and malignant progression. The focus will be on defining the role of tumor-specific proteolysis of the Trop-2 transmembrane receptor, a 43 kDa glycoprotein overexpressed in many cancers. Following proteolytic cleavage, Trop-2 undergoes functional activation, promoting carcinogenesis. Through the determination of Trop-2's three-dimensional structure and the development of specific ligands, the therapeutic efficacy of innovative molecules will be evaluated using advanced in vitro cell models, such as 3D spheroids and organoids. Furthermore, specific molecular signatures in pathological conditions will be identified through proteomic analysis and mass spectrometry, providing novel therapeutic targets for the development of next-generation drugs.
Duration	**X Annual X Renewable**
Annual Cost	€ 24.000
Departmental Funding	Funding fully covered by the PRIN 2022 project
UGOV Project Name	PROJECT: PRIN 2022 (Code 2022SPE7ZY) -_ PRJ-0288PRINTREROTOLA
UGOV Project CUP	**D53C24004360006**
Participation Requirements	Degree in Experimental Disciplines (Biological Sciences, Biotechnological Sciences, or related fields).

Additional Curricular Requirements Beyond the Second-Level Degree (Art. 2 of the Call for Applications)	- PhD Degree with a scientific and professional background suitable for conducting research activities; - Experience with software tools for analyzing data generated by omics technologies; - Experience in biochemical techniques; - Research experience in cellular biology.
Expected Outcomes	Definition of New Predictive Markers for Disease Progression and Response to Targeted Therapies.