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Ministero  
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Italiadomani  
PIANO NAZIONALE  
DI RIPRESA E RESILIENZA



Università  
degli Studi  
di Ferrara

## PROGETTI DI RICERCA DI INTERESSE NAZIONALE PRIN 2022: PROGETTI AMMESSI AL FINANZIAMENTO

N	Cognome e nome	Ruolo	Titolo
1	BORTOLOTTI Daria	Resp UOL	SARS-CoV-2-induced endothelial cell dysfunction: mec+D3:D40hanisms and therapeutic approaches
2	NICOLI Francesco	PI	Repurposing of PPAR modulators: a novel STrategy to awaken T-cell Immunity in the Elderly (PAST TIME)
3	CONTI Andrea	PI	Quantum communications: state design and error correction
4	RAFFO Antonio	PI	DIGital Synthetic Aperture Radars to MAintain National Excellence in Space Applications (DISARMA)
5	TRILLO Stefano	PI	Extreme wave phenomena in quadratic optical crystals
6	FABBRI Barbara	PI	Visible light activated gas sensors based on semiconductors: an operando investigation by DRIFT and confocal micro-Raman spectroscopy (LEVANTO)
7	FONTANA Federica	PI	AFTER THE ICE - Forager Uses of "Persistent Places" in the Late Upper Palaeolithic of the Circum-Adriatic Region: Perspectives from the Riparo Tagliente (Verona, Italy) and Badanj (Bosnia and Herzegovina)
8	FIORINI Massimiliano	PI	Beyond state-of-the-art hybrid pixel detector system for X-ray spectral imaging in cultural heritage applications
9	GARZIA Isabella	PI	MANTRA - Measuring Anti-Neutron: Tagging and Reconstruction Algorithm for frontier experiments
10	PAGANO Luca	Resp UOL	GeoneUtrinos: mESSengers of the Earth's interior - GUESS
11	ZAVATTINI Guido	PI	Optical polarimetry for fundamental Physics
12	BENAZZO Andrea	PI	Reconstructing the domestication process of the white lupin (Lupinus albus) in the Mediterranean basin using pangenome graphs
13	BERTORELLE Giorgio	PI	Global warming now and then: the speed and load factors affecting the success or failure of a range expansion
14	BRAMANTI Barbara	PI	SHOVELING into the North Italian Bronze Age with an integrative approach to unearth the evolutionary origins of a non-metric dental trait
15	GERDOL Renato	Resp UOL	Response of arctic and alpine ecosystems to photoperiod-climate interaction in the context of climate change
16	GHIROTTI Silvia	Resp UOL	Investigating the transition from hunter-gathering to farming in Southern Italy through metagenomic and population genetic analysis of ancient human dental calculus
17	CHIOZZI Andrea	PI	Advanced mechanical models and computational methods for large-scale 3D printing of innovative concrete structures (COM^3D-CREATE)
18	DE MATTEI Monica	Resp UOL	BIOCOAT - Novel Deposition Method for Biomedical Applications
19	FIORAVANTE Vincenzo	Resp UOL	Seismic failure and post-failure response of slopes
20	FORTINI Annalisa	Resp UOL	GIFTED (desiGn of addItive manuFactured niTinol Endovascular Devices) GIFTED (desiGn of addItive manuFactured niTinol Endovascular Devices)
21	LIVIERI Paolo	Resp UOL	Hybrid joints between dissimilar metal materials for lightweight structures of environmentally-friendly vehicles: experimental characterization, theoretical modeling and CAE-based simulation chain from joint manufacturing to fatigue design by local approaches.
22	SPINA Pier Ruggero	Resp UOL	Smart Energy in Cities and Communities for 2050
23	BATTARRA Mattia	Resp UOL	COMBINE: sustainable CondiTiOn Monitoring of wind turBiNes using sound sIgNals and machiNe lEarning techniques
24	CRUCIANI Giuseppe	PI	Rubble-to-Resource (RUB2RES): Earth science knowledge for sorting and recycling Construction and Demolition Waste
25	GIANOLLA Piero	PI	CPE Drilling Project: digging into Triassic extreme climate change (CDP)
26	SOANA Elisa	PI	NO3EXCESS - Nitrogen Origin, EXport and Cycling in coastal irrigatEd SettingS
27	BERNARDI Francesco	Resp UOL	Rediscovering coagulation factor VIII clearance in health and disease: from bleeding diathesis to thrombotic complications
28	BORGATTI Monica	PI	Study of myopathy 3D models for anti-inflammatory treatment strategy
29	DE GIORGIO Roberto	PI	NOVEL MOLECULAR MECHANISMS IN CHRONIC INTESTINAL PSEUDO-OBSTRUCTION
30	ZAMBELLI Cristian	Resp UOL	Omics analysis and automated clot detection for thrombus histology in acute ischemic strokes using high performance computing AI systems.
31	FORLATI Serena	PI	International protection of human dignity through criminal law: strengthening Italy's implementation record (DignITA).
32	GARDINI Gianluca	PI	Next Generation PA: Digital Transformation For An Innovative Public Administration-NgPA Next Generation PA: la transizione digitale per una PA innovativa - NgPA
33	MAGRI Marco	Resp UOL	Effectiveness and integration of the policies and measures for administrative prevention of illegality and corruption
34	MARTINELLI Enrica	Resp UOL	Religion and emergency rules
35	NEGRI Daniele	Resp UOL	New technologies, biometric data and criminal proceedings Nuove tecnologie, dati biometrici e procedimenti penali
36	PIFFERI Michele	PI	"Casuistry" and rule-based approach in criminal law. Historical perspectives, current developments.
37	BOSCHERI Walter	PI	Efficient numerical schemes and optimal control methods for time-dependent partial differential equations
38	MASSARENTI Alex	PI	Birational geometry of moduli spaces and special varieties
39	MELLA Massimiliano	Resp UOL	Multilinear Algebraic Geometry
40	PARESCI Lorenza	Resp UOL	Advanced numerical methods for time dependent parametric partial differential equations with applications



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41	MAZZANTI Valentina	Resp UOL	Untapping the potential of GREEN COmposites by combining performance and environmental sustainability - GREENCO
42	Andrea Corli	Resp UOL	Modeling, Control and Games through Partial Differential Equations
43	BORELLI Silvia	Resp UOL	Exploited labour. An interdisciplinary research on the polities aimed at preventing labour exploitation
44	GILLI Marianna	Resp UOL	Protecting the Environment: Advances in Circular Economy (PEACE)
45	RIZZO Leonzio Giuseppe	PI	Citizens and local governments response to adverse shocks: the role of politics, elections and media salience
46	RIZZO Ugo	Resp UOL	TRAcEs of the Twin Transition on skills and Occupations: nature, quality and effects of digital and green jobs (TRATTO)
47	PIVA Maria Roberta	PI	Extracellular matrix from umbilical cord as component for bioscaffolds tailored to intervertebral disc diseases
48	RIMESSI Alessandro	Resp UOL	Exploring mitochondrial-derived vesicles (MDVs) content, dynamics, and functions during inflammatory response
49	TREVISAN Caterina	PI	Metabolic dysregulation as biomarker of frailty: role of the mitochondrial dysfunction
50	ZAVAN Barbara	PI	Green and bioactive 3D printed microalgae gel patches for guided skin and bone regeneration in diabetic foot ulcers (GREENPATCH).
51	BELLODI Elena	PI	Probabilistic declarative process mining (PRODE)
52	BERARDI Serena	Resp UOL	PHOTOactive aerophobic hydroGels for hydrogEN generation in molecular-based photoelectrosynthetic cells (PHOTOGEN)
53	CARLI Stefano	Resp UOL	SUN-SPOT: copper indium Sulfide qUantum dotS as Photocatalysts for sun-driven biomass OxiDaTion
54	FRANCHINA Flavio Antonio	PI	Unique analytical workflow involving COMPLEMENTary TECHniques for the reliable molecular identification of hydrocarbons (CompleTe)
55	AZZOLINA Danila	Resp UOL	Connecting and Analyzing Electronic Health Records of Pediatric Emergency Departments in Italy: towards new frontiers from prevention to delivery of best care and health service organization strategies (ConnAEctH PED)
56	BORTOLUZZI Alessandra	Resp UOL	The role and characterization of circulating microvesicles as early predictors of development of autoimmune rheumatic diseases
57	ESPOSITO Elisabetta	PI	Ethosomes for transdermal delivery of phytocompounds as tools to prevent skin pollution damage
58	MARTI Matteo	PI	Shedding new lights on the emerging New Synthetic Opioids of "Nitazene" class: a Multidisciplinary Pharmaco-toxicological and Analytical approach towards forensic investigation (NSO_MAP)
59	RUZZA Chiara	PI	Study of the interplay between Herpes Simplex Virus 1 and the APOE4 lipoprotein in the onset of sporadic Alzheimer's disease: investigating the therapeutic potential of autophagy modulation
60	SCARAMUZZO Gaetano	PI	Prediction of Non-invasive ventilation (NIV) failure based on circulating biomarkers, Electrical Impedance Tomography and advanced respiratory mechanics: a multi-source pathophysiological study on acute respiratory failure using artificial intelligence.
61	PRODI Nicola	Resp UOL	LearN: Learning in Noise
62	CRAIGHERO Laila	PI	SensoriMotor Assessment of digital Capacity and aCcessibility (SMACC)
63	GUERRINI Remo	Resp UOL	YAP-TEAD impairment to target the Hippo pathway induced cancer cell growth (TEAD-I3T)
64	MASSI Alessandro	Resp UOL	Sustainable and SelecTive conversion of CARBohydrates from Biomass into fine chemicals (SUST-CARB)
65	RAGNO Daniele	Resp UOL	Discovery and Engineering of Improved Biocatalysts for the Synthesis of Biodegradable Plastic Copolymers (BioCat4BioPol)
66	ADINOLFI Elena	PI	Development of a COmbined P2X4/P2X7 targeting strategy to manage Inflammatory Bowel Diseases: a translational study (COPe-IBD)
67	BALESTRA Dario	PI	Base editors as new personalized treatment for Hemophilia A
68	BONORA Massimo	PI	hyPERTRAcE - Tracing the genomic and biochemical regulations of cell fate by the mitochondrial PERmeability TRAnSition pore
69	CIANCETTA Antonella	PI	Neuropeptide S receptor: understanding the molecular bases of ligand binding and receptor activation
70	GIORGI Carlotta	Resp UOL	Unlocking the structure and function of the heme transporter FLVCR1
71	PINTON Paolo	Resp UOL	Exploring the role of ELOVL4 in squamous epithelia homeostasis and pathology: integrating lipid metabolism, ferroptosis and mitochondrial signaling cascades
72	ALLEVATO Enrica	Resp UOL	Save Olive: in vitro propagation and preservation (SO-live)
73	BALDISSEROTTO Costanza	PI	microAlgae- and BActeria-mediated Valorization of fruIt processing by-producTs/wAstes in a green, circular economy perspective (ALBA-VITA)
74	CAMPO Gianluca Calogero	Resp UOL	PHENOtyping type 2 DIAbetic patients with Coronary Artery Disease according to microvascular complications: a multi modality-imaging and laboratory STUDY. The PHENO-DIACAD STUDY
75	OCCHIONORELLI Savino	Resp UOL	Deciphering the cholangiocarcinoma-microenvironment interactions to identify clinical biomarkers of treatment response
76	NEGRINI Massimo	PI	Enhancement of therapeutic response to standard-of-care drugs employed against hepatocellular carcinoma by hitting metabolic dependencies
77	VALACCHI Giuseppe	PI	Dissecting the oxinflammatory mechanisms involved in Rett Syndrome pre-symptomatic/symptomatic switch: focus on mitochondria and inflammasome activation



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78	VOLPATO Stefano	Resp UOL	PREVENTION OF FUNCTIONAL DECLINE BY MULTIMODAL INTERVENTION IN OLDER DIABETIC PATIENTS
79	DI VIRGILIO Francesco	Resp UOL	Purinergic checkpoints in neuroinflammation and Alzheimer's disease: extracellular ATP and the P2X7 receptor as main drivers of neurodegeneration
80	FERRARO Luca	Resp UOL	Neurodevelopmental consequences of maternal exposure to cannabis: a multidisciplinary investigation on the role of kynurenine pathway in vulnerable progeny.
81	TOMASINI Maria Cristina	Resp UOL	Kainate receptor antagonists for pharmacological neuroprotection in Parkinson's Disease
82	PELLEGRINI Marco	PI	Development and validation of an Integrated risk prediction model for Corneal graft survival following Endothelial keratoplasty: an artificial intelligence based approach (DISCOVER)
83	PUGLIATTI Maura	PI	Investigating vascular predictors of poor visual outcome in the multidisciplinary management of immune-mediated optic neuritis (ON-COLOUR)
84	RISPOLI Giorgio	Resp UOL	Signal transmission at the mammalian vestibular hair cell synapses
85	NATOLI Paolo	Resp UOL	BROWSEPOL: Beyond standard model With cosmic microwave background Polarization
86	SIMONATO Michele	PI	A combinatorial gene therapy for focal epilepsy based on coordinated expression of multiple GABA-A receptor subunits
87	ANTONIOLI Davide	PI	CITYBLE - Developing Two-Sided Citizen Analytics for the Sustainable Digital Society
88	ASARA Viviana	Resp UOL	Just transition in the factory. Workers' mobilizations and participatory innovation in emergent Italian experiences
89	FERRETTI Federica	PI	Mathematics standardized assessment as a tool for teachers' professional development
90	VISINTIN Emilio Paolo	Resp UOL	Developing inclusive societies: The role of valence and intensity of offline and online interethnic contact
91	CAPARRINI Marialuisa	Resp UOL	The Germanic Reception of Lanfranc's of Milan Chirurgia magna: Critical Edition and Terminological Commentary of the English and German Branches of the Tradition
92	D'ALFONSO Matteo Vincenzo	Resp UOL	Philosophical Reviews in German Territories (1668-1799)
93	FALDUTO Antonino	PI	The Paradigm Shift in the Modern Understanding of Freedom
94	FIORILLO Ada Patrizia	PI	The return to painting and the persistence of the image.
95	GRITTI Valentina	Resp UOL	Ariosto's library. For a new commentary on 1532 Orlando furioso
96	ROMANINI Fabio	PI	NEW OPEN ACCESS CRITICAL EDITION OF DANTE'S "COMMEDIA" FOSTERING DIGITAL HUMANITIES PROJECTS. COLLATION OF 580 MSS, PROVISIONAL TEXTS AND APPARATUSES, AND LEXICAL UPDATINGS TO THE "VOCABOLARIO DANTESCO"
97	TROVATO Paolo	Resp UOL	NAPLES DANTE PROJECT
98	SAMPERI Renata	Resp UOL	Being Architects, Teaching History. The Italian Contribution to a New History of Architecture: Zevi, Bruschi and Tafuri Architetti che insegnano storia. Il contributo italiano a una nuova storia dell'architettura: Zevi, Bruschi e Tafuri