

PROGETTI DI  
**eccellenza** 2017

PROGETTI AMMESSI ALLA SECONDA FASE DEL BANDO

## AREA 1 - SCIENZE NATURALI E INGEGNERIA

Titolo del progetto	Principal Investigator
Advances in the development of functional nanomaterials for solar fuel production: from design to photoelectrochemical applications	Barreca Davide
A new generation of micro-photobioreactors to accelerate model development for the optimal design and control of microalgae-based processes	Bezzo Fabrizio
Soil-Plant-Atmosphere Interactions: Roots as Optimal Organized Transport Systems	Cassiani Giorgio
Advancing Research in Sign Language Recognition and Translation with a Holistic Perspective	Cenedese Angelo
Remote search for life around cool stars: potential impact of photosynthesis on exoplanet atmospheres and surface biosignatures	Claudi Riccardo
Wettability-control Surfaces for Smart two-phase Technologies	Del Col Davide
Rethinking the design of protective helmets to avoid traumatic brain injuries	Galvanetto Ugo
Fluvial and Tidal Meanders of the Venetian-Po Plain: from Hydrodynamics to Stratigraphy	Ghinassi Massimiliano
Innovative hydrogels for conservation agriculture	Maggini Michele
Changing rainfall extremes and their implications for water resources and natural hazards	Marani Marco
Statistical Physics Approach to Ecosystem Dynamics	Maritan Amos
Distribute Monitoring of Debris flows by Photonic Sensors	Pasuto Alessandro
hyperSPectral Imaging for early Diseases dEtection in gRapevine	Pelizzo Maria Guglielmina
Ion Beams for Quantum Technologies	Rigato Valentino
NEXT GENeration artificial photosynthESIS for the production of valuable chemicals from water and carbon dioxide	Sartorel Andrea
Precision Positioning for Precision Agriculture	Sartori Luigi
Engineering van der Waals Interactions: Innovative Paradigm for the Control of Nanoscale Phenomena	Silvestrelli Pier Luigi
White-light-cavities for gravitational wave detectors sensitivity improvement.	Zendri Jean-Pierre

## AREA 2 - SCIENZE DELLA VITA

Titolo del progetto	Principal Investigator
Searching for disease modifiers in arrhythmogenic cardiomyopathy: focus on exercise and sexual hormones to chase novel targets to prevent sudden death	Basso Cristina
Toward a peptide-based therapy for COL6-myopathies	Bonaldo Paolo
PINK1, alpha-synuclein and protein kinase A interplay in neurodegeneration	Brini Marisa
Development of breeding tools to enhance resistance to hyperketonemia in dairy cows	Carnier Paolo
Surgical planning, outcome prediction, and neuroplasticity in brain oncology	Corbetta Maurizio
Reprogramming of cell metabolism by ECM mechanical cues: opening new perspectives for regenerative medicine and cancer treatment	Dupont Sirio
Dyslexia prevention through video games	Facoetti Andrea
The immune-pathological basis of neurodegeneration in Multiple Sclerosis. Search for correlation between the intrathecal lymphocyte/cytokine network and markers of neurodegeneration (neurofilaments and gray matter atrophy) at clinical onset.	Gallo Paolo
PERsonalizEd Cancer Therapy via one-pot functionalizable polyavidin nanoassemblies	Morpurgo Margherita
Identification and characterization of genetic modifiers of Duchenne muscular dystrophy	Pegoraro Elena
Early dysfunctions of astrocytic calcium signaling in Alzheimer's disease	Pozzan Tullio
Exploring time and space: ovarian cancer heterogeneity and its therapeutic implications	Romualdi Chiara
Mitochondria, Inflammation and Sarcopenia: a Crossroad of Unhealthy Ageing	Sandri Marco
Elucidating signals of mitochondrial shape changes	Scorrano Luca
Tackling obesity and weight-related diseases: predictors of weight loss and clinical improvements after lifestyle modifications or bariatric surgery.	Vettor Roberto
Transcriptome profiling of gut-brain axis modulation by intestinal quorum sensing system	Visioli Francesco

### AREA 3 - SCIENZE UMANE E SOCIALI

Titolo del progetto	Principal Investigator
Atlante della Letteratura del Veneto Medievale	Borriero Giovanni
Self- and Co-Regulation in EU Law	Cortese Bernardo
World War I Local Landscape - Conflict Archaeology, Research and innovative Exhibition	De Guio Armando
The impact of inequality and the economic crisis on wellbeing: the role of psychosocial	De Vogli Roberto
Integrated Multidisciplinary Approach to Recover Giotto's Architectures with Non-invasive Analysis	Deiana Rita
Infants' Peripersonal Space: The Space Where Self and Other Interact	Farroni Teresa
Focusing on Change. A Qualitative and Collaborative Research with Asylum Seekers, Refugees and Citizens of Padua	Frisina Annalisa
"Daily Bread". The rise of the Global Wheat Market (1840-1914)	Fumian Carlo
The Forgotten Manuscripts in Padua. Study and Edition of Two XII Century Manuscripts of Justinian's Digestum Vetus and Codex Repetitae Praelectionis (Bibl. Univ. inv. 941 and 688)	Lambrini Paola
Promoting support for pediatric vaccinations through parent advocates	Lotto Lorella
Expanding the Frontiers of Econometrics: A Machine Learning Approach to Labour Market Analysis, Predictions and Policies	Nunziata Luca
Criminal Firms: Characteristics and Effects on Competition	Parbonetti Antonio
La memoria degli oggetti. Un approccio multidisciplinare per lo studio, la digitalizzazione e la valorizzazione della ceramica greca e magno-greca in Veneto.	Salvadori Monica
"Value for money" in public procurement for medical technology & devices	Valbonesi Paola
Computational foundations of number sense and mathematical learning in typical and atypical development	Zorzi Marco
Early attentional, perceptual and motor abilities and their relationship to language acquisition: implications for atypical development	Valenza Eloisa