Anno 2013

Università degli Studi di MODENA e REGGIO EMILIA >> Sua-Rd di Struttura: "Scienze della vita"

B.1.b Gruppi di Ricerca

1. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Food Chemistry and Technology
Descrizione	The research activity involves the study of food matrices, with particular attention to the technological aspects and their influence on volatile compounds, chemical composition, and sensory quality. The research activities involve the oenological field, the lipids and the fruit sector, through seting up and application of analytical methods aimed to quality control of food, product and process studies in order to optimize the quality and the development of innovative products.
Sito web	
Responsabile scientifico/Coordinatore	ANTONELLI Andrea (Scienze della vita)

Settore ERC del gruppo:
LS6_9 - Bacteriology

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
MASINO	Francesca	Scienze della vita	Ricercatore	AGR/15
VASILE SIMONE	Giuseppe	Scienze della vita	Dottorando	AGR/15

Altro Personale	Montevecchi Giuseppe (PT a tempo determinato)

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2. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	PPL
Descrizione	In the past the Plant Physiology (PPL) research group focused on heavy metal polluted soil phytoremediation, but the Research interests now lie in the response of plants to abiotic stress and in their communication. The Lab also collaborates with other Researchers inside the DSV in studying ancient plant DNA (aDNA) from archaeological sites. Being member of the Interdepartmental Centre Biogest-Siteia for Agri-food Biological Resources Improvement and Valorisation (which belongs to the High Technology Network of Emilia-Romagna Region) the applied Research of the Lab also deals with therapeutic and medicinal properties of plants.
Sito web	http://www.geco.unimore.it http://attheedgesofeurope.com/
Responsabile scientifico/Coordinatore	ARRU Laura (Scienze della vita)

Settore ERC del gruppo:
LS2_1 - Genomics, comparative genomics, functional genomics
LS2_4 - Metabolomics
LS9_5 - Agriculture related to crop production, soil biology and cultivation, applied plant biology

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
FORTI	Luca	Scienze della vita	Ricercatore	CHIM/06
MUSSI	Francesca	Scienze della vita	Dottorando	BIO/04

Altro Personale	Cramarossa Maria Rita (PT)

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3. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	PHYTO and MORE
Descrizione	Medicinal plants are today still the primary form of health care for the developing countries and also widely used as supplement or substitute to conventional drugs in the developed ones. These products require a pharmaceutical level of assurance for efficacy and safety in their use. Multiple constituents, working synergistically, are usually responsible for their therapeutic effects. Consequently, it is necessary to define all the constituents of plant extracts and nutraceuticals to understand the bioactivity and possible adverse effects of active compounds, and to enhance product quality control. High-performance liquid chromatography (HPLC) and gas chromatography (GC), often hyphenated with mass spectrometry (MS), are highly recommended methodologies and widely applied in the ambit of natural product analysis. The expertise of the PHYTO AND MORE laboratory is specific for this ambit of research and the studies which have been carried out in recent years were developed thanks to national and international research collaboration.
Sito web	
Responsabile scientifico/Coordinatore	BENVENUTI Stefania (Scienze della vita)

Settore ERC del gruppo:
LS7_3 - Pharmacology, pharmacogenomics, drug discovery and design, drug therapy
PE4_6 - Chemical physics

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
PELLATI	Federica	Scienze della vita	Ricercatore	CHIM/08
PRENCIPE	Francesco Pio	Scienze della vita	Dottorando	CHIM/08
TARDUGNO	Roberta	Scienze della vita	Dottorando	CHIM/08

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4. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Bioinformatics Core
Descrizione	The research activity focuses on the development of bioinformatics tools for the analysis of complex biological systems. Specifically, we design, deploy, and apply computational procedures for the analysis of genomics data from high-throughput technologies as microarray and Next Generation sequencing. Applications are mostly in the area of molecular oncology and functional genomics.
Sito web	
Responsabile scientifico/Coordinatore	BICCIATO Silvio (Scienze della vita)

Settore ERC del gruppo:
LS2_1 - Genomics, comparative genomics, functional genomics
LS2_10 - Bioinformatics

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
FORCATO	Mattia	Scienze della vita	Ric. a tempo determ.	BIO/11
MAZZA	Emilia Maria Cristina	Scienze della vita	Assegnista	ING-IND/34
NUZZO	Simona	Scienze della vita	Assegnista	ING-IND/34
TACCIOLI	Cristian	Scienze della vita	Assegnista	ING-IND/34
VALSONI	Sara	Scienze della vita	Dottorando	BIO/13

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5. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Fruit Crops and Viticulture
Descrizione	Research activity deals with the exploration of local crops and the study of fruit quality . Specific research themes of the group are: - identification of fruit tree cultivars and landraces through phenotyping and genotyping; - evaluation and exploitation of the local germplasm of grapevine and minor fruit tree species; study of the relationship among environmental factors, plant management and genotype; - analysis and characterization of genes involved in domestication of grapevine and fruit tree species; - analysis and characterization of genes linked to production and quality. Aim of the research activity is the deep knowledge of local genetic resources for the improvement of fruit quality and the sustainable use in fruit growing systems and multi-functional arboriculture.
Sito web	
Responsabile scientifico/Coordinatore	BIGNAMI Cristina (Scienze della vita)

Settore ERC del gruppo:
LS9_5 - Agriculture related to crop production, soil biology and cultivation, applied plant biology
LS9_6 - Food sciences

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
VASILE SIMONE	Giuseppe	Scienze della vita	Dottorando	AGR/15

Altro Personale	Matrella Valentina (Co.Co.Co) Imazio Serena Anna

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6. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	LEO
Descrizione	The LEO research group is active in organic electronics applied to medicine. We are developing biodegradable devices for diagnostics and loco-regional therapy. Our current interests are: i) implantable devices for the treatment of spinal cord injury; ii) the detection of inflammatory biomarkers in biological fluids; iii) the real time monitoring of bioelectric signals with devices interfaced to human body; iv) the prototyping of biodegradable organic electronics. We also investigate the fundamental aspects of charge transport in organic semiconductors. Specifically, we study the correlation of charge transport with the multiscale organization of the organic semiconductor by means of in-situ real time techniques: electrical characterization, scanning force microscopy at variable temperature, X-ray reflectivity and diffraction. This techniques require a home-built instrumental set-up that is currently managed at CNR-ISMN Bologna and that we access in the framework of an ongoing collaboration between our Department and ISMN.
Sito web	www.leo.unimore.it
Responsabile scientifico/Coordinatore	BISCARINI Fabio (Scienze della vita)

Settore ERC del gruppo:
PE3_15 - Statistical physics: phase transitions, noise and fluctuations, models of complex systems

PE4_2 - Spectroscopic and spectrometric techniques
PE5_3 - Surface modification
PE5_4 - Thin films
PE5_8 - Intelligent materials - self assembled materials
PE5_9 - Coordination chemistry

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
FOSCHI	Giulia	Scienze della vita	Assegnista	CHIM/03

Altro Personale	1.Bellei Marzia (PT) 2. Campana Alessandra (PhD student Chemistry, UNIBO) 3. Murgia Mauro (Senior Res. Engineer, CNR ISMN-BO) 4. Valle Francesco (Scientist CNR ISMN-BO) 5. Barbalinardo Marianna (Postdoc CNR ISMN-BO) 6. Albonetti Cristiano (Res. Engineer CNR ISMN -BO)

7. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Applied Microbiology and Microbial Genetics
Descrizione	Study of bacteriocin-producers (Lactic Acid Bacteria) and of their bacteriocins to be used as natural preservatives to improve quality and safety in food field. Study of antibacterial activity of plastic materials added with antimicrobial compounds (silver, essential oils, chitosan, bacteriocins, ecc.) to be used for active food packaging production. Study of biological characteristics (toxins, haemolysins, bacteriocins) influencing the virulence and responsible of selective pressure in microorganisms isolated from food, clinical and environmental samples; evaluation of survival of pathogens (Legionella pneumophila) and opportunistic bacteria (Aeromonas hydrophila, Pseudomonas spp.) and their interaction in different ecosystems and in the biofilm production. Evaluation of the chemo-antibiotic resistance in bacteria of clinical, environmental, food and animal origin. Identification and characterization of genetic determinants encoding for antibiotic-resistance, antibacterial activity and virulence factors through microbial recombination mechanisms and molecular researches.
Sito web	
Responsabile scientifico/Coordinatore	BONDI Moreno (Scienze della vita)

Settore ERC del gruppo:
LS6_7 - Microbiology
LS7_10 - Environment and health risks, occupational medicine
LS9_6 - Food sciences
LS9_9 - Applied biotechnology (non-medical), bioreactors, applied microbiology

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
CONDO	Carla	Scienze della vita	Dottorando	BIO/19
MESSI	Patrizia	Scienze della vita	Prof. Associato	MED/42
ANACARSO	Immacolata	Scienze della vita	Assegnista	BIO/19
SABIA	Carla	Scienze della vita	Ricercatore	BIO/19
ISEPPI	Ramona	Scienze della vita	Assegnista	BIO/19

Altro Personale	de Niederhausern Simona (Co.Co.Co)

8. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	LiBraMedChem
Descrizione	(1) Synthesis, purification and structural characterization of new ligands for alpha-1 adrenergic (A), 5-HT1A serotoninergic (B), NOP (C), Sigma (D), TAAR receptors (E). Structure-Activity Relationship studies are performed on the basis of biological results obtained by testing the molecules previously designed for each project (A, B, C, D, E) and then produced in our lab. (2) Synthesis, purification and structural characterization of new 1,3-oxathiolane/dioxolane and 1,3-dioxane based nucleoside analogues as potential antiviral/anticancer agents. RATIONALE (1A, 1B): initially introduced for hypertension management, alpha-1 antagonists have become increasingly common for symptomatic treatment of benign prostatic hyperplasia (BPH). The 5-HT1A receptor subtype is involved in a wide range of physiopathological processes. The main limitation of many 5-HT1A receptor ligands is their undesired high affinity for other receptor subtypes such as alpha-1- adrenoceptors (high degree of homology). Recently, our research group has demonstrated that a properly substituted 1,3-dioxolane moiety is a suitable scaffold for developing selective ligands targeting alpha-1 adrenoceptors or 5-HT1A receptors. (1C): the N/OFQ-NOP receptor system is distinct from classical opioid receptors. NOP agonists are being investigated as potential therapeutics for anxiety, cough, and drug abuse. NOP antagonists have been studied for their utility in treating Parkinson's, depression, obesity and learning deficits. Among the neuroleptics tested, spiroxatrine (an alpha-2 adrenergic and 5-HT1A antagonist) was selected as lead compound and we reported on the results of a large SAR study aimed at identifying a new series of triazaspirodecanones as NOP receptor ligands. (1D): sigma receptors are a distinct class from that of opioid too. They are divided into sigma1 and sigma2 subclasses. Several functions for sigma1 receptors have been discovered: modulatory roles on K+ and Ca2+ channels and on dopaminergic, NMDA, serotoninergic, muscarinic neurotransmission, while sigma2 receptors are involved in the regulation of cell proliferation and viability. Despite several selective, high affinity sigma1 ligands are available, sigma2 ligands are not characterized to the same extent. Our aim is to find more potent sigma1 ligands and new, selective sigma2 ligands. (1E): it is expected, for example, that targeting human TAAR1 (trace amine-associated receptor 1) could provide a novel pharmacological approach for several human disorders, such as schizophrenia, depression, attention deficit, hyperactivity disorder, Parkinsons and metabolic diseases. With the aim to identify new molecular entities able to act as ligands for this target, we recently started a research project in this field. RATIONALE (2): together with protease inhibitors (PI), drugs inhibiting the RNA- and DNA-dependent DNA polymerase activity of RT (Reverse Transcriptase) are the major components of highly active antiretroviral therapy (HAART). RT inhibitors belong to two main classes: nucleoside RT inhibitors (NRTIs) and non nucleoside RT inhibitors (NNRTIs). The advent of RT inhibitors with higher genetic barriers to the development of resistance and/or novel mechanisms of action promise to further reduce the risk of resistance development. BCH-1230, which has the same sugar configuration of the natural nucleotides, showed two fold greater activity than ddI. We evaluated first the effect on the RT inhibitory activity of a methyl group introduction at position 5 of the 1,3-oxathiolane ring of BCH-1230. Our research in this field (NRTIs synthesis) is still in progress and has produced also 1,3-dioxane and 1,3-dioxolane based derivatives. Furthermore 1,3-dioxolane-based nucleosides are reported to inhibit the growth of hepatocellular and prostate tumours, making them attractive candidates for more detailed medicinal chemistry studies.
Sito web	
Responsabile scientifico/Coordinatore	BRASILI Livio (Scienze della vita)

Settore ERC del gruppo:
LS7_3 - Pharmacology, pharmacogenomics, drug discovery and design, drug therapy

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BATTISTI	Umberto Maria	Scienze della vita	Assegnista	CHIM/08
FRANCHINI	Silvia	Scienze della vita	Ricercatore	CHIM/08
SORBI	Claudia	Scienze della vita	Ricercatore	CHIM/08
TAIT	Annalisa	Scienze della vita	Prof. Associato	CHIM/08

Altro Personale	Gallesi Rossella (PT)

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9. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Molecular neuropsychopharmacology
Descrizione	Study of the molecular targets involved in the mechanism of action of antidepressant and antipsychotic drugs Characterization of animal models of mental disorders and response to psychotropic drugs Investigation of the role of centrally expressed cytokines on long-term impairment of hippocampal plasticity and related behaviors. Acute and chronic effects of environmental stress on gene expression in animal models of depression

	Interaction of inflammatory biomarkers and neurotrophins in the CNS in relation to psychotropic drug treatment and response
Sito web	
Responsabile scientifico/Coordinatore	BRUNELLO Nicoletta (Scienze della vita)

Settore ERC del gruppo:
LS5_12 - Psychiatric disorders (e.g. schizophrenia, autism, Tourettes syndrome, obsessive compulsive disorder, depression, bipolar disorder, attention deficit hyperactivity disorder
LS5_3 - Neurochemistry and neuropharmacology
LS5_5 - Mechanisms of pain
LS5_6 - Developmental neurobiology
LS5_8 - Behavioural neuroscience (e.g. sleep, consciousness, handedness)
LS5_9 - Systems neuroscience
LS7_3 - Pharmacology, pharmacogenomics, drug discovery and design, drug therapy

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BENATTI	Stefania	Scienze della vita	Dottorando	BIO/14
ALBONI	Silvia	Scienze della vita	Assegnista	BIO/14
TASCEDDA	Fabio	Scienze della vita	Prof. Associato	BIO/14

Altro Personale	Benatti Cristina (PT)

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10. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Nutritional Biochemistry
Descrizione	Research activities in the Nutritional Biochemistry lab: Determination of peptide profiles during physiological digestion of milk and vegetable proteins. Fractionation, identification and characterization of antihypertensive, antioxidant and anti-cancer peptides in protein digests. Determination and characterization of cell-envelope proteases of Lactobacillus casei and Lactobacillus rhamnosus (in collaboration with the Food Microbiology lab) Evaluation of cytotoxic and anti-proliferative activity of polyphenols metabolites and other food bioactive compounds against colonic adenocarcinoma cell lines. Identification of new natural compounds with specific biological activity concerning the modulation of digestive enzyme, the protection against oxidative stress and protein glycation.
Sito web	
Responsabile scientifico/Coordinatore	CONTE Angela (Scienze della vita)

Settore ERC del gruppo:
LS1_2 - General biochemistry and metabolism
LS9_6 - Food sciences

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BELLESIA	Andrea	Scienze della vita	Dottorando	BIO/10
TAGLIAZUCCHI	Davide	Scienze della vita	Ricercatore	BIO/10

VERZELLONI	Elena	Scienze della vita	Assegnista	AGR/16

Altro Personale	Sefora Rutella Giuseppina

11. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Pharmacology and Toxicology
Descrizione	a) Study of biochemical pathways involved in degenerative processes: new targets for anti-cancer compounds and/or preventing neurodegeneration: The purpose of this research is devoted to the study of new pathways involved in the process of degeneration (ie TSPO recepor complex) as a possible pharmacological target in cancer treatment or neurodegenerative disorders. b) Nanotoxicology: Evaluation of the potential carcinogenic and autoimmune activity of metal nanoparticles: in vitro studies. c) Toxicological evaluation of food supplements. a) Study of biochemical pathways involved in degenerative processes: new targets for anti-cancer compounds and/or preventing neurodegeneration: The purpose of this research is devoted to the study of new pathways involved in the process of degeneration (ie TSPO recepor complex) as a possible pharmacological target in cancer treatment or neurodegenerative disorders. b) Nanotoxicology: Evaluation of the potential carcinogenic and autoimmune activity of metal nanoparticles: in vitro studies. c) Toxicological evaluation of food supplements.
Sito web	
Responsabile scientifico/Coordinatore	CORSI Lorenzo (Scienze della vita)

Settore ERC del gruppo:
LS4_6 - Cancer and its biological basis
LS7_3 - Pharmacology, pharmacogenomics, drug discovery and design, drug therapy

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
MOMO DONGMO	Bendjedith	Medicina diagnostica, clinica e di sanità pubblica	Dottorando	BIO/14
AVALLONE	Rossella	Scienze della vita	Ricercatore	CHIM/10

Altro Personale	Sighinolfi Gianluca

12. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Drug discovery of enzyme inhibitors
Descrizione	We are interested in the discovery of new leads/drug candidates in the area of cancer and infectious diseases using known and advanced methodologies. Our main targets are the folate pathways in different organisms: Thymidylate synthase (TS)/others for cancer targeting; Pteridine reductase/Dihydrofolate reductase dual specific targets in trypanosomatidic infections, FDTS/ThyX in Mycobacterium tuberculosis (collaboration: Thydock Pharma). -lactamase inhibitors discovery for antinfective combinations with beta-lactam antibiotics (collaboration: B.K.Shoichet) and ligand discovery in biosensor design for drug resistance detection (collaboration:Tydock Pharma). Our main activities are: drug design, synthesis, enzymology, drug-target interaction studies (spectrophotometric techniques, ITC), MS proteomics. New concepts we are developing are: a) identification of protein-protein interaction inhibitors targeting TS. b) setting up of an advanced path for drug discovery were lead compounds are developed using target-based assays and cell-based biomarkers studies (collaboration: Giuseppe Cannazza, Domenico DArca, Gaetano Marverti, Glauco Ponterini). c) Translational research through proteomic studies in ovarian cancer (collaboration:CIGS, Lorena Losi, Eliana Leo) for unique marker tool discoveries.
Sito web	http://cdm.unimo.it/home/dipfarm/costi.mariapaola/

Responsabile scientifico/Coordinatore	COSTI Maria Paola (Scienze della vita)

Settore ERC del gruppo:
LS2_3 - Proteomics
PE7_3 - Simulation engineering and modelling

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
COSTANTINO	Luca	Scienze della vita	Prof. Associato	CHIM/08
LUCIANI	Rosaria	Scienze della vita	Assegnista	CHIM/08
PONTERINI	Glauco	Scienze della vita	Prof. Ordinario	CHIM/02
SANTUCCI	Matteo	Scienze della vita	Dottorando	CHIM/08
SPYRAKIS	Francesca	Scienze della vita	Assegnista	CHIM/08
SAXENA	Puneet	Scienze della vita	Assegnista	CHIM/08
TADDIA	Laura	Scienze della vita	Dottorando	BIO/15
TONDI	Donatella	Scienze della vita	Ricercatore	CHIM/08

Altro Personale	Pavesi Giorgia (PT)

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13. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	CMR Gene Therapy
Descrizione	Michele De Luca is the coordinator of GENE THERAPY Program. His main research activity is focused on definition of experimental and clinical protocols for gene therapy of genetic diseases of the skin (such as different forms of Epidermolysis Bullosa) and ocular epithelia (such as different forms of corneal distophy) by ex-vivo correction of epithelial stem cells. He is also invovled in BASIC RESEARCH activity: culture and functional characterization of epithelial stem cells (epidermis, cornea, conjunctiva, urethra and oral mucosa) and studies of molecular mechanisms regulating self-renewal, proliferation and differentiation of squamous epithelial stem cells by conventional methods integrated with genomic, epigenomic and transcriptomic technologies; He collaborates with the CELL THERAPY Coordinator, Graziella Pellegrini, in definition of experimental and clinical protocols aimed at clinical application of epidermal stem cells in different cutaneous pathologies, and stem cells of conjunctival, urethral and buccal epithelia in traumatic destruction of the conjunctival epithelium, dry-eye Syndrome, posterior hypospadias, recurring urethral stenosis, reconstructive surgery of blindness due to bilateral ocular surface damage.
Sito web	www.cmr.unimore.it/en
Responsabile scientifico/Coordinatore	DE LUCA Michele (Scienze della vita)

Settore ERC del gruppo:
LS1_1 - Molecular interactions
LS3_11 - Cell genetics
LS3_12 - Stem cell biology
LS3_2 - Cell biology and molecular transport mechanisms
LS3_4 - Apoptosis
LS3_5 - Cell differentiation, physiology and dynamics
LS3_6 - Organelle biology
LS3_7 - Cell signalling and cellular interactions
LS3_8 - Signal transduction

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
FRANCHINI	Eleonora	Scienze della vita	Dottorando	BIO/10
SECONE SECONETTI	Alessia	Scienze della vita	Assegnista	BIO/10

Altro Personale	Balugani Roberta (PT)

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14. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Computational Structural Biology
Descrizione	Research in F. Fanelli lab essentially concerns the employment of computational modeling to infer the functioning mechanism of G protein-Coupled Receptors (GPCRs) and their associated G proteins. Effort is put on deciphering the structural determinants of genetic diseases linked to GPCR missense mutations. More recently, interest extended to small Ras GTPases, in particular Rho and its activating RhoGEF oncogenes, with the aim to discover/design anticancer agents. Essential aspects of the research include development of protocols and software for tertiary and quaternary protein structure predictions and for the analyses of biomolecular structures and dynamics (e.g. Wordom: http://wordom.sourceforge.net/). In this respect, a computational protocol for high throughput investigation of structural communication in bio-macromolecules has been developed and implemented in a web server (WebPSN: http://webpsn.hpc.unimore.it/). Recent studies concern also the integration of atomistic and network-level (Systems Biology) simulations to unveil the structural determinants of mutations linked to retinal diseases.
Sito web	
Responsabile scientifico/Coordinatore	FANELLI Francesca (Scienze della vita)

Settore ERC del gruppo:
LS2_11 - Computational biology
LS7_3 - Pharmacology, pharmacogenomics, drug discovery and design, drug therapy

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
CASCIARI	Daniele	Scienze della vita	Assegnista	BIO/10
DE BENEDETTI	Pier Giuseppe	Scienze della vita	Prof. Ordinario	CHIM/02
FELLINE	Angelo Nicola	Scienze della vita	Assegnista	CHIM/02
RAIMONDI	Francesco	Scienze della vita	Assegnista	BIO/10

Altro Personale	Seeber Michele (Co.Co.Co)

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15. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Cell Biology
Descrizione	Research in S. Ferrari lab concerns the study of human normal myeloid differentiation. Since 2000 he developed, in the Department of Biomedical Sciences, the methodology of DNA microarrays and the bioinformatics tools for data analysis. These studies have been applied to the genetic control of normal myelopoiesis and particularly to the study of hemopoietic stem cells obtained from different sources (peripheral blood and cord blood). Actually is doing research on specific hemopoietic transcription factors and miRNA involved in the commitment phase of hemopoietic stem cell and, based on different methodological approaches, to try to define the genetic programs underlying the lineage choice of HSC and therefore the differentiation plasticity. Recently a genome wide approach to the study of transcription

	regulation of gene expression in normal myelopoiesis has been developed using several bioinformatic tools altogether with a systems biology approach. Moreover positional effect of gene expression and chromosome territories arrangement are actually the object of his investigation in normal and leukemic myeloid cells in collaboration with prof. Thomas Cremer (LMU-Muenchen).
Sito web	
Responsabile scientifico/Coordinatore	FERRARI Sergio (Scienze della vita)

Settore ERC del gruppo:
LS2_8 - Epigenetics and gene regulation
LS7_1 - Medical engineering and technology

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
LOMIENTO	Mariana	Scienze della vita	Assegnista	BIO/13
MAMMOLI	Fabiana	Scienze della vita	Dottorando	BIO/13

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16. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	ELASTYC
Descrizione	The research activity of ELASTYC (Experimental Laboratory for Science and Technology of Cognition) is focused on development and implementation of both hardware and software advanced tools to help diagnostic process in human pathologies, psychophysiological objective characterization and automatic management of experiments in electrophysiology. Collaborations: Sergio Ferrari: 3D Spatial position and concentration processing of chromatin in chromosomes. Lorena Losi: Processing of genomic data through advanced software platforms. Luigi Rovati (Engineering Dept. UNIMORE): Non invasive acquisition and processing of fast NIRS signal from human cortex. Alberto Pasetto (Critical Care Dept., Policlinico Modena): System for automatic evaluation of hydroelectrolytic balance in critical care patient. Renato Seeber (ChemGeo Dept. UNIMORE): Real time sensor measurements of ions concentration in fluids of critical care patients to get reliable hydroelectrolytic balance. Vittorio Vellani (Biomedical Sciences Dept.): Automatic perfusion system and temperature control in cells culture.
Sito web	http://155.185.24.3/Joomla/
Responsabile scientifico/Coordinatore	FONDA Sergio (Scienze della vita)

Settore ERC del gruppo:
LS2_10 - Bioinformatics
LS9_2 - Synthetic biology, chemical biology and new bio-engineering concepts

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
MALAGOLI	Andrea	Scienze della vita	Assegnista	ING-INF/06

Altro Personale	Corradini Matteo (PT)

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17. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Chemistry Solid State Charaterization
Descrizione	Topics covered: a) crystallization and characterization (theoretical and applied aspects) of active pharmaceutical ingredients (APIs), for the detection of different polymorphic forms related to pharmaceutical formulations. APIs qualitative and quantitative analyzes are conducted on pure substance and on finished pharmaceutical product (solid state or in solution), with attention to possible changes induced by industrial processes (grinding, heating, compression) or from storage; b) cosmetic and pharmaceutical ancient residues characterization and validation of the analytical data obtained by analysis of raw materials and formulations reference reproduced in the laboratory, both subjected to different methods of artificial aging; c) application and development of the methodology SERS (surface-enhanced Raman scattering) for the determination of APIs or cosmetic ingredients in complex matrices d) analysis of biological matrices with separation techniques LC-MS/MS/MS.
Sito web	
Responsabile scientifico/Coordinatore	GAMBERINI Maria Cristina (Scienze della vita)

Settore ERC del gruppo:
PE4_3 - Molecular architecture and Structure
PE4_6 - Chemical physics

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BARALDI	Cecilia	Scienze della vita	Ricercatore	CHIM/09

Altro Personale	Ruffilli Stefano (PT)

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18. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	UMCC
Descrizione	UMCC Reseach Group harbours competences on functional starter cultures for food and industrial fermentation processes. These competances are supported by a combination of knowledge from several scientific disciplines including: taxonomy, analytical chemistry, ecology, biology, genetic engineering, fermentation, and informatics. UMCC Group performes field experiments, isolation and identification of microorganisms, qualitative and quantitative studies of microbial functionalities by modeling expertise. The UMCC Biobank holds about 2700 strains (yeasts, acetic acid bacteria and lactic acid bacteria), maintained in collection by techniques that ensure preservation and genetic stability for long term.The strains in the collection are characterized by polyphasic approach and all the information is carefully managed and monitored by BioloMICS NET software (BioAware).
Sito web	www.umcc.unimore.it
Responsabile scientifico/Coordinatore	GIUDICI Paolo (Scienze della vita)

Settore ERC del gruppo:
LS9_6 - Food sciences
LS9_9 - Applied biotechnology (non-medical), bioreactors, applied microbiology

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
DAKAL	Tikam Chand	Scienze della vita	Dottorando	AGR/16
GULLO	Maria	Scienze della vita	Ricercatore	AGR/16
LEMMETTI	Federico	Scienze della vita	Assegnista	AGR/16
MEZZETTI	Francesco	Scienze della vita	Dottorando	AGR/16
VERZELLONI	Elena	Scienze della vita	Assegnista	AGR/16

Altro Personale	1. De Vero Luciana (PT) 2. Solieri Lisa (PT)

19. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Experimental Onco-Hematology
Descrizione	Characterization of the molecular mechanisms underlying the monocyte / macrophage differentiation of normal and leukemic hematopoietic stem cells. Characterization of the molecular mechanisms responsible for the chemoprevention activity exerted by mesalazine against colo-rectal cancer.
Sito web	
Responsabile scientifico/Coordinatore	GRANDE Alexis (Scienze della vita)

Settore ERC del gruppo:
LS3_5 - Cell differentiation, physiology and dynamics

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
MONTORSI	Lucia	Scienze della vita	Dottorando	BIO/13

20. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Drug delivery and targeting
Descrizione	Oral delivery: a) Transport of bioactives across the intestinal epithelia b) Gastric Residence Time modulation Skin delivery: a) Nanoparticles translocation across the stratum corneum b) Micro- and nanoparticles to improve performance of bioactives Parenteral delivery: Formulation strategy of lipid nanoparticles and liposomes for the peptide delivery and targeting to human ovarian cancer (Collaboration with prof. Maria Paola Costi) Pulmonary delivery: a)Breathable microparticles for the Tuberculosis treatement : this project aims to develop biocompatible, biodegradable and eco-friendly processed Solid Lipid Microparticles loaded with rifampicin, a first-line anti-TB drug able to be taken up by alveolar macrophages and induce bactericidal effect on infected cells or animal models, in a perspective of an inhaled therapy by means a DPI device for the treatment of TB infection. Collaborations Prof. M. Romagnoli, Department of Engineering Enzo Ferrari Unimore Prof. M. Bondi, Department of Life Sciences, Microbiological Lab. Unimore Prof. M.J. Blanco Prieto and Dr. E. Imbuluzqueta (research associate), Department of Pharmacy and Pharmaceutical Technology, School of Pharmacy, University of Navarra, Pamplona, Spain, Dr. F. Buttini (RTD) and A.G. Balducci (research fellow), Department of Pharmacy, University of Parma.
Sito web	
Responsabile scientifico/Coordinatore	IANNUCCELLI Valentina (Scienze della vita)

Settore ERC del gruppo:
LS7_3 - Pharmacology, pharmacogenomics, drug discovery and design, drug therapy

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
LEO	Eliana	Scienze della vita	Prof. Associato	CHIM/09
SACCHETTI	Francesca	Scienze della vita	Dottorando	CHIM/09

21. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Molecular Genetics
Descrizione	TRANSCRIPTIONAL AND NON-TRANSCRIPTIONAL CONTROL OF CELL PROLIFERATION AND DIFFERENTIATION. The activity of the laboratory is focused on NF-Y, a heterotrimeric transcription factor with a pioneering role in the establishment of transcriptional programs. NF-Y regulates the transcription of several genes, such as cell cycle, pro- and anti-apoptotic genes, whose expression is fundamental in the balance between cell proliferation and cell death. NF-Y is one of the transcription factors orchestrating oncogenic transcriptional changes, and clinical studies correlated upregulated expression of its target genes to poor clinical prognosis in multiple types of cancer. Moreover, NF-Y has a key role in the control of proliferation and differentiation programs of pluripotent and adult stem cells. Our research is directed towards investigating the transcriptional and non-transcriptional activity of NF-Y in cancer cells and muscle stem cells.
Sito web	
Responsabile scientifico/Coordinatore	IMBRIANO Carol (Scienze della vita)

Settore ERC del gruppo:
LS2_8 - Epigenetics and gene regulation
LS3_12 - Stem cell biology
LS3_3 - Cell cycle and division

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BASILE	Valentina	Scienze della vita	Assegnista	BIO/10

Altro Personale	Benatti Paolo (PhD student)

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22. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Food production, processing and shelf life
Descrizione	Meat production, meat processing and quality assessment: Meat as functional food: fortify meat by dietary supply of functional ingredients; Meat fat quality for the improvement of oxidative stability and healthy of PDO dry-curing products; Qualitative characteristics and evaluation methodologies of the carcass and meat of farm animals, with particular reference to the effects of dietary fat and micronutrients supplementation on organoleptic, nutritional, technological characteristics and shelf-life of products. Packaging and shelf life: Evaluation of the packaging materials safety concerning potential migration of contaminants in food matrices, by means of the development and validation of monitoring procedures; Development and functional testing of food packaging materials derived from natural substances (e.g. pectins, alginate) Edible films used to increase the shelf life of meat products and to encapsulate food or not food substances. Test of the antimicrobial activity of natural substances, incorporated in edible or plastics films, against the most common meat pathogens.
Sito web	
Responsabile scientifico/Coordinatore	LO FIEGO Domenico Pietro (Scienze della vita)

Settore ERC del gruppo:
LS6_7 - Microbiology
LS9_3 - Agriculture related to animal husbandry, dairying, livestock raising
LS9_6 - Food sciences
PE5_11 - Biological chemistry
PE5_4 - Thin films

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
FAVA	Patrizia	Scienze della vita	Prof. Associato	AGR/15
IELO	Maria Cristina	Scienze della vita	Assegnista	AGR/19
MINELLI	Giovanna	Scienze della vita	Ricercatore	AGR/19
PULVIRENTI	Andrea	Scienze della vita	Prof. Associato	AGR/16
SBERVEGLIERI	Veronica	Scienze della vita	Assegnista	AGR/15
VOLPELLI	Luisa Antonella	Scienze della vita	Prof. Associato	AGR/18

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23. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Applied Entomology
Descrizione	Innovative and sustainable strategies for the integrated management of pests in agricultural ecosystems: investigations on the alien invasive insects Brown Marmorated Stink Bug Halyomorpha halys, Spotted Wing Drosophila Drosophila Suzuki, Chinese chestnut gall wasp Dryocosmus kuriphilus. Forensic entomology services and innovative management strategies for stored product and wood pests in food production and storage facilities, cultural heritage and urban environments. Ecology and characterization of arthropod populations feeding on animal organic matter in dry-land and freshwater environments. Insects as useful resources for the management of organic waste. Preserving honeybee health: the role of multiple infestations/infections in colony losses phenomena; control strategies for Nosema infections using natural compounds. Xylophagous insects in the vineyards (termites and wood-boring beetles): damage assessment and study of possible interactions with wood pathogens.
Sito web	
Responsabile scientifico/Coordinatore	MAISTRELLO Lara (Scienze della vita)

Settore ERC del gruppo:
LS8_2 - Population biology, population dynamics, population genetics
LS8_3 - Systems evolution, biological adaptation, phylogenetics, systematics, comparative biology
LS8_7 - Animal behaviour

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BORTOLINI	Sara	Scienze della vita	Dottorando	AGR/11
DI DOMENICO	Davide	Scienze della vita	Dottorando	AGR/11
MEREU PIRAS	Pierpaola	Scienze della vita	Dottorando	AGR/11

Altro Personale	Vaccari Giacomo, collaboratore

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24. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Insect Genetics and Biosciences
Descrizione	The research interests are mainly related to the evolution of the insect genomes and their symbionts from a molecular point of view. The main research topics are related to the study of insect chromosomes with particular interest for holocentric chromosomes in aphids, the expression of immunity-related genes in insect-symbiont interactions, the analysis of the distribution of symbiotic bacteria in insect tissues by whole mount in situ hybridization, the analysis of the basis of insecticide resistance (focusing attention on aphids and lepidopterans) and the development of in vitro cell culture for the study of biopesticides against insects vectors of plant bacterial pathogens.

Sito web	www.igblab.it
Responsabile scientifico/Coordinatore	MANDRIOLI Mauro (Scienze della vita)

Settore ERC del gruppo:
LS2 - Genetics, Genomics, Bioinf ormatics and Systems Biology: Molecular and population genetics, genomics, transcriptomics, proteomics, metabolomics, bioinformatics, computational biology, biostatistics, biological modelling and simulation, systems biology, genetic epidemiology
LS8_11 - Species interactions (e.g. food-webs, symbiosis, parasitism, mutualism)
LS9 - Applied life Sciences a nd Non-Medical Biotechnology: Agricultural, animal, fishery, forestry and food sciences; biotechnology, genetic engineering, synthetic and chemical biology, industrial biosciences; environmental biotechnology and remediation

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
MANICARDI	Gian Carlo	Scienze della vita	Prof. Associato	BIO/18
MONTI	Valentina	Scienze della vita	Dottorando	AGR/07

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25. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Genomic and transcriptomic lab for Regenerative Medicine
Descrizione	1. Molecular characterization of stem cells of squamous epithelia (epidermis, cornea, conjunctiva, urethra and buccal mucosa) and hematopoietic stem cells and identification of molecular mechanisms underlying their self-renewal, proliferation and differentiation. 2. Molecular and functional characterization of leukemic stem cells;
Sito web	http://www.cmr.unimore.it/home.html
Responsabile scientifico/Coordinatore	MANFREDINI Rossella (Scienze della vita)

Settore ERC del gruppo:
LS2 - Genetics, Genomics, Bioinf ormatics and Systems Biology: Molecular and population genetics, genomics, transcriptomics, proteomics, metabolomics, bioinformatics, computational biology, biostatistics, biological modelling and simulation, systems biology, genetic epidemiology
LS3 - Cellular and Developmental Biology: Cell biology, cell physiology, signal transduction, organogenesis, developmental genetics, pattern formation in plants and animals, stem cell biology
LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular disease, metabolic syndrome

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BULGARELLI	Jenny	Scienze della vita	Assegnista	BIO/13
BIANCHI	Elisa	Scienze della vita	Ric. a tempo determ.	BIO/13
NORFO	Ruggiero	Scienze della vita	Dottorando	BIO/13
PENNUCCI	Valentina	Scienze della vita	Dottorando	BIO/13
PRUDENTE	Zelia	Scienze della vita	Dottorando	BIO/13
SACCHI	Giorgia	Scienze della vita	Assegnista	BIO/13
SALATI	Simona	Scienze della vita	Ric. a tempo determ.	BIO/13
ZINI	Roberta	Scienze della vita	Ric. a tempo determ.	BIO/13

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26. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Molecular Biology of Retinal Degenerations
Descrizione	The laboratory of Molecular Biology of Retinal Degenerations focuses on molecular mechanisms underlying genetic diseases that impair vision: retinitis pigmentosa (RP) and albinism. We apply molecular biology, biochemistry and cell biology techniques to identify molecular pathways in murine models of human diseases of the eye. We characterized molecular mechanisms underlying rod cells death caused by mutations in the PDE6B and RHO genes and demonstrated the key function of calpains, Bax and Aif. We are now interested in testing in vivo therapeutic molecules to counteract the degenerative process: 1) blockers of the apoptotic pathway such as cGMP analogs, calpain inhibitors, molecular chaperones for RHO 2) neurotrophic factors such as PEDF. We are also assessing cell therapy approaches for retinal degenerations affecting the retinal pigment epithelium (RPE). To this aim we are developing in vitro protocols to differentiate functional RPE from human retinal stem cells.
Sito web	
Responsabile scientifico/Coordinatore	MARIGO Valeria (Scienze della vita)

Settore ERC del gruppo:
LS1_1 - Molecular interactions
LS1_8 - Biophysics (e.g. transport mechanisms, bioenergetics, fluorescence)
LS3_4 - Apoptosis
LS5_4 - Sensory systems (e.g. visual system, auditory system)
LS7_2 - Diagnostic tools (e.g. genetic, imaging)
LS9_1 - Applied genetic engineering, transgenic organisms, recombinant proteins, biosensors

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BEHNEN	Petra Johanna	Scienze della vita	Assegnista	BIO/11
BERTOLOTTI	Evelina	Scienze della vita	Assegnista	BIO/11
COMITATO	Antonella	Scienze della vita	Assegnista	BIO/11
DI SALVO	Maria Teresa	Scienze della vita	Dottorando	BIO/11
HOFFMANN	Dorit	Scienze della vita	Assegnista	BIO/11

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27. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Advanced Research Laboratory of Angiology and Cardiology
Descrizione	Research in Mattioli lab concerns two main topics: 1) myocardial regeneration by the way of cardiomyocites differentiation and homing and 2) biocompatibility of extracorporeal circulation. 1. the regeneration of myocardial damaged tissue is a very actual approach to myocardial ischemia. The Lab has developed an animal model for evaluation of Bone Marrow Mesenchymal stem cells differentiation into cardiomyocites (collaboration with the Department of Medical and Surgical Sciences for Children and Adults and the Department of Surgical, Medical, Dental and Morphological Sciences with Interest transplant, Oncological and Regenerative Medicine of UNIMORE) and for evaluation of pro-arrhythmic effects of stem cells therapy. 2. The lab developed a model of extracorporeal circulation to evaluate biocompatibility of materials and the influence of heparin on biocompatibility (in collaboration with CELL Lab and with Department of Diagnostic Medicine, Clinical and Health public of UNIMORE)
Sito web	
Responsabile scientifico/Coordinatore	MATTIOLI Anna Vittoria (Scienze della vita)

Settore ERC del gruppo:
LS2 - Genetics, Genomics, Bioinf ormatics and Systems Biology: Molecular and population genetics, genomics, transcriptomics, proteomics, metabolomics, bioinformatics, computational biology, biostatistics, biological modelling and simulation, systems biology, genetic epidemiology
LS7_3 - Pharmacology, pharmacogenomics, drug discovery and design, drug therapy

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
FARINETTI	Alberto	Scienze mediche e chirurgiche materno-infantili e dell'adulto	Prof. Associato	MED/18
MIGALDI	Mario	Chirurgico, medico, odontoiatrico e di scienze morfologiche con interesse trapiantologico, oncologico e di medicina rigenerativa	Ricercatore	MED/08
PENNELLA	Sonia	Scienze della vita	Dottorando	BIO/13

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28. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Gene Transfer and Gene Therapy
Descrizione	We study the molecular mechanisms underlying target site selection of retroviruses, and the role of viral vector design in influencing integration and perturbation of gene expression in human somatic cells. By a combination of genomic, bioinformatic, biochemical and imaging techniques, we study the role of transcriptional regulatory elements and transcriptional complexes in targeting viral pre-integration complexes (PICs) to specific chromatin regions in the host cell nucleus. Transcriptional profiling, chromatin immunoprecipitation-based approaches and bioinformatics is used to associate frequent integration clusters to annotated feature of the human genome and to epigenetic marks characteristics of enhancers, promoters, transcribed genes and heterochromatin. The role of genetic and protein components of the PICs in directing tethering to chromatin is analyzed by genetic and biochemical approaches.
Sito web	
Responsabile scientifico/Coordinatore	MAVILIO Fulvio (Scienze della vita)

Settore ERC del gruppo:
LS2 - Genetics, Genomics, Bioinf ormatics and Systems Biology: Molecular and population genetics, genomics, transcriptomics, proteomics, metabolomics, bioinformatics, computational biology, biostatistics, biological modelling and simulation, systems biology, genetic epidemiology
LS7 - Diagnostic Tools, Therapies and Public Health: Aetiology, diagnosis and treatment of disease, public health, epidemiology, pharmacology, clinical medicine, regenerative medicine, medical ethics

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
MICCIO	Annarita	Scienze della vita	Ric. a tempo determ.	BIO/11

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29. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Palynology and Paleobotany
Descrizione	LabPalPal (Laboratory of Palynology and Paleobotany) studies palynology (pollen in modern and past contexts) and archaeobotany (seeds, fruits and wood/charcoals). The laboratory hosts the largest reference collection in Italy, and coordinates national and international networks (GPSBI, BRAIN). It has prevalently operated in the field of botany and past environmental reconstructions in cooperation with archaeologists and geologists since the beginning of the 80s. Presently, the main research topics are cultural landscape development as a joint action of ecological features and human impact in a given environment; the role of plants in cultural evolution, past climate oscillations and environmental transformations, especially from the Lateglacial to the present (last 14,000 years), and in the Mediterranean and Saharan areas.
Sito web	www.palinopaleobot.unimore.it
Responsabile scientifico/Coordinatore	MERCURI Anna Maria (Scienze della vita)

Settore ERC del gruppo:
LS8_2 - Population biology, population dynamics, population genetics
LS8_3 - Systems evolution, biological adaptation, phylogenetics, systematics, comparative biology

LS8_4 - Biodiversity, conservation biology, conservation genetics, invasion biology
LS8_5 - Evolutionary biology: evolutionary ecology and genetics, co-evolution
PE10_6 - Paleoclimatology, paleoecology
SH6_2 - Prehistory and protohistory

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BOSI	Giovanna	Scienze della vita	Ricercatore	BIO/03
DALLAI	Daniele	Scienze della vita	Ricercatore	BIO/02
MAZZANTI	Marta	Scienze della vita	Prof. Associato	BIO/02
RATTIGHIERI	Eleonora	Scienze della vita	Dottorando	BIO/02

Altro Personale	Torri Paola (PT) Florenzano Assunta (Co.Co.Co.) Rinaldi Rossella (Co.Co.Co) Montecchi Maria Chiara (borsista) Bertoni Daniele (PT) Maffettone Luigi (PT) Barbieri Giovanna (PT) Buldrini Fabrizio (Co.Co.Co)

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30. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Biochemistry and Molecular Biology in Skeletal Muscle
Descrizione	We study the role played by the MEF2C transcription factor in satellite cells (SCs), the resident stem cells of adult skeletal muscle. In muscle dystrophy the activity of SCs is strongly impaired, resulting in the lack of muscle repair. We identified mechanisms that regulate MEF2C: alternative splicing of Mef2c transcripts and phosphorylation of splice variants modulate the ability of MEF2C to interact with co-regulators and ultimately to control the balance between proliferation and differentition of SCs. We are also investigating the activity of MEF2C in two models of cancer: Rhabdomyosarcoma (RMS)and colorectal cancers (CRC) in collaboration with Dr Lorena Losi. We found that a MEF2C splice variant is upregulated in human RMS and its subcellular localization is altered in CRC in comparison to normal tissue. We are also developing molecular tools to interfere with the pro-proliferative activity of MEF2C.
Sito web	
Responsabile scientifico/Coordinatore	MOLINARI Susanna (Scienze della vita)

Settore ERC del gruppo:
LS1_1 - Molecular interactions
LS1_5 - Protein synthesis, modification and turnover
LS1_8 - Biophysics (e.g. transport mechanisms, bioenergetics, fluorescence)
LS3_12 - Stem cell biology
LS3_3 - Cell cycle and division

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BARUFFALDI	Fiorenza	Scienze della vita	Dottorando	BIO/10
BATTINI	Renata	Scienze della vita	Prof. Associato	BIO/10

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31. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Developmental and comparative immunology and neuro-endocrinology

Descrizione	1.Characterization and evolution of the immune and neuroendocrine response of non-mammalian Metazoans 2.Basic mechanisms of cell death 3.Analysis of repair processes in different developmental stages of Amphibian species. 4. Analysis of molecules involved in osmotic control in lancelet. 5. Neuroendocrinology in teleost larvae
Sito web	
Responsabile scientifico/Coordinatore	OTTAVIANI Enzo (Scienze della vita)

Settore ERC del gruppo:
LS3_9 - Development, developmental genetics, pattern formation and embryology in animals
LS6_1 - Innate immunity and inflammation
LS6_2 - Adaptive immunity
LS6_4 - Immunosignalling

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
FRANCHINI	Antonella	Scienze della vita	Prof. Associato	BIO/06
MALAGOLI	Davide	Scienze della vita	Ricercatore	BIO/06
MOLA	Lucrezia	Scienze della vita	Prof. Associato	BIO/06

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32. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Medicinal chemistry
Descrizione	- Design; preparation and biological activity of novel positive allosteric modulators of AMPA/Kainate receptors; - Development of chromatographic methods for qualitative and quantitative analysis of endogenous and exogenous compounds in biological matrix; - Development of chiral chromatographic methods to evaluate stereo and chemical stabililty of biological active compounds
Sito web	
Responsabile scientifico/Coordinatore	PARENTI Carlo (Scienze della vita)

Settore ERC del gruppo:
LS7 - Diagnostic Tools, Therapies and Public Health: Aetiology, diagnosis and treatment of disease, public health, epidemiology, pharmacology, clinical medicine, regenerative medicine, medical ethics

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BRAGHIROLI	Daniela	Scienze della vita	Prof. Associato	CHIM/08
CANNAZZA	Giuseppe	Scienze della vita	Ricercatore	CHIM/08
RUSTICHELLI	Cecilia	Scienze della vita	Ricercatore	CHIM/08

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33. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Crop Production
	The Group conducts research on both crop and model plants to improve their productivity and end-use quality. Genomic research focuses on the biological mechanisms limiting crop production under biotic and abiotic stress conditions in target crop species: barley, tomato and rice. A first Italian Brachypodium genomics platform established for B.

Descrizione	distachyon, the new model plant for Triticeae, enables research on identification and characterization of conserved orthologous markers between barley and Brachypodium. Functional genomics of plant-pathogen interactions regards transcriptional profiling of tomato and Brachypodium in response to the fungal pathogens. The Group conducts as well research on agronomic and physiological management of food and biomass crops in conventional and low input environments.
Sito web	www.cropsci.unimore.it
Responsabile scientifico/Coordinatore	PECCHIONI Nicola (Scienze della vita)

Settore ERC del gruppo:
LS2_1 - Genomics, comparative genomics, functional genomics
LS2_7 - Quantitative genetics
LS9_5 - Agriculture related to crop production, soil biology and cultivation, applied plant biology

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BERETTA	Massimiliano	Scienze della vita	Dottorando	AGR/02
CAFFAGNI	Alessandra	Scienze della vita	Assegnista	AGR/02
FRANCIA	Enrico	Scienze della vita	Ricercatore	AGR/02
LAVIANO	Luca	Scienze della vita	Dottorando	AGR/02
EMERIEWEN	Ofere Francis	Scienze della vita	Dottorando	AGR/12
MAZZAMURRO	Valentina	Scienze della vita	Assegnista	AGR/02
RONGA	Domenico	Scienze della vita	Assegnista	AGR/02

Altro Personale	Milc Justyna Anna (PT)

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34. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	CMR Cell Therapy
Descrizione	Graziella Pellegrini is the coordinator of CELL THERAPY Program. Her main research activity is focused on definition of experimental and clinical protocols aimed at clinical application of: - limbal stem cells in different pathologies of the ocular surface; - stem cells of conjunctival, urethral and buccal epithelia in traumatic destruction of the conjunctival epithelium, dry-eye Syndrome, posterior hypospadias, recurring urethral stenosis, reconstructive surgery of blindness due to bilateral ocular surface damage; - stem cells of respiratory epithelia for the reconstruction of upper respiratory tract; - epidermal stem cells in different cutaneous pathologies. She is also involved in BASIC RESEARCH activity: culture and functional characterization of epithelial stem cells (cornea, conjunctiva, urethra, oral mucosa an epidermis) and studies of molecular mechanisms regulating self-renewal, proliferation and differentiation of squamous epithelial stem cells by conventional methods integrated with genomic, epigenomic and transcriptomic technologies; She collaborates with theGENE THERAPY Coordinator, Michele De Luca, in definition of experimental and clinical protocols for gene therapy of genetic diseases of ocular epithelia (such as different forms of corneal distophy) and skin (such as different forms of Epidermolysis Bullosa) and by ex-vivo correction of epithelial stem cells.
Sito web	www.cmr.unimore.it/en
Responsabile scientifico/Coordinatore	PELLEGRINI Graziella (Scienze della vita)

Settore ERC del gruppo:
LS1_1 - Molecular interactions
LS3_11 - Cell genetics
LS3_12 - Stem cell biology
LS3_2 - Cell biology and molecular transport mechanisms

LS3_3 - Cell cycle and division
LS3_4 - Apoptosis
LS3_5 - Cell differentiation, physiology and dynamics
LS3_6 - Organelle biology
LS3_7 - Cell signalling and cellular interactions
LS3_8 - Signal transduction

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
CORRADINI	Francesca	Scienze della vita	Ric. a tempo determ.	BIO/10
GENNA	Vincenzo Giuseppe	Scienze della vita	Dottorando	BIO/13
LOSI	Lorena	Scienze della vita	Ricercatore	MED/08
MASCIALE	Valentina	Scienze della vita	Dottorando	BIO/13
PANARAS	Athanasios	Scienze della vita	Assegnista	BIO/13
ESTEKI	Roza	Scienze della vita	Dottorando	BIO/10

Altro Personale	Ribbene Anna (PT) Manni Paola (PT)

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35. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Cellular and molecular Immunology
Descrizione	The research activity of the Lab is focused on three main topics: 1. Role of circulating mitochondrial DNA (mtDNA) as a proinflammatory molecule. mtDNA, when released outside the cells, can act as a damage associated molecular pattern, and triggers an inflammatory reaction. We analyse the role of mtDNA in the pathogenesis of chronic inflammatory diseases, and in physiological aging. 2. Analysis of mitochondrial functionality in peripheral blood lymphocytes from patients with multiple sclerosis (MS). MS is an autoimmune disease in which a specific immune response versus the myelin basic protein is present. As activation of T cells is characterized by a deep change in mitochondrial metabolism, our aim is to understand if different forms of MS are characterized by different mitochondrial activity. 3. Comprehension of mitochondrial proteases regulation in colorectal cancer pathogenesis.
Sito web	
Responsabile scientifico/Coordinatore	PINTI Marcello (Scienze della vita)

Settore ERC del gruppo:
LS3_6 - Organelle biology
LS4_4 - Ageing
LS6_2 - Adaptive immunity

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
COSSARIZZA	Andrea	Chirurgico, medico, odontoiatrico e di scienze morfologiche con interesse trapiantologico, oncologico e di medicina rigenerativa	Prof. Ordinario	MED/04
DE BIASI	Sara	Chirurgico, medico, odontoiatrico e di scienze morfologiche con interesse trapiantologico, oncologico e di medicina rigenerativa	Assegnista	MED/04
GIBELLINI	Lara	Chirurgico, medico, odontoiatrico e di scienze morfologiche con interesse trapiantologico, oncologico e di medicina rigenerativa	Assegnista	MED/04
		Chirurgico, medico, odontoiatrico e di scienze morfologiche con interesse trapiantologico, oncologico e di medicina		

NASI	Milena	rigenerativa	Assegnista	MED/04

36. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Food chemistry and nutraceutical science
Descrizione	The mission is conducting basic and applied research to increase the knowledge of natural bioactive components for the design and formulation of new nutraceuticals. Other important research topic is the development and validation of analytical methods (HPLC/MS, ICP/MS, NMR and other spectroscopic techniques) for the characterization and the promotion of food of animal and vegetable origin. Another objective of our research group is to study the use of fingerprint techniques in the attempt to obtain chemometric models for the classification of samples in relation to their origin and the traceability process.
Sito web	http://www.foodlab.unimore.it/site/home.html
Responsabile scientifico/Coordinatore	PLESSI Maria (Scienze della vita)

Settore ERC del gruppo:
LS9 - Applied life Sciences a nd Non-Medical Biotechnology: Agricultural, animal, fishery, forestry and food sciences; biotechnology, genetic engineering, synthetic and chemical biology, industrial biosciences; environmental biotechnology and remediation
PE4_6 - Chemical physics

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BERTELLI	Davide	Scienze della vita	Ricercatore	CHIM/10
GRAZIOSI	Riccardo	Scienze della vita	Dottorando	CHIM/10

Altro Personale	Soragni Fabrizia (PT) Papati Giulia (Borsista)

37. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Organic synthesis
Descrizione	The group focuses on synthesis and synthetic methodology to tackle problems of relevance to medicinal chemistry and biotechnology. In particular the group is developing
Sito web	
Responsabile scientifico/Coordinatore	PRATI Fabio (Scienze della vita)

Settore ERC del gruppo:
LS7_3 - Pharmacology, pharmacogenomics, drug discovery and design, drug therapy
PE5 - Synthetic Chemistry and Materials: Materials synthesis, structure-properties relations, functional and advanced materials, molecular architecture, organic chemistry

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
ROMAGNOLI	Chiara	Scienze della vita	Assegnista	CHIM/06

Altro Personale	Caselli Emilia (Post doc)

38. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Ecology and conservation of aquatic ecosystems
Descrizione	We address a broad range of ecological questions, including: - marine chemical ecology: we adopt a chemical and ecotoxicological approach to characterize natural products with biological activity defending marine annelids from their enemies (predators, competitors or parasites); - the study of phenotypic adaptations and evolutionary processes that permit life in changing environments: we explore plasticity of life histories (LH) and physiological traits (PT) of model polychaetes, in order to investigate the role of LH and PT in determining species capacities to cope with climate change and how differently widespread species will adapt to climate change. - the assessment of biodiversity of aquatic ecosystems: we investigate macroinvertebrates, fishes, amphibians and reptiles communities from freshwater environments, in order to asses their quality status and to promote actions for the conservation/restoration of habitats and/or species.
Sito web	
Responsabile scientifico/Coordinatore	PREVEDELLI Daniela (Scienze della vita)

Settore ERC del gruppo:
LS8_1 - Ecology (theoretical and experimental; population, species and community level)
LS8_5 - Evolutionary biology: evolutionary ecology and genetics, co-evolution
LS8_8 - Environmental and marine biology

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
CONESE	Ilaria	Scienze della vita	Dottorando	BIO/07
CAPRIOLI	Rosa	Scienze della vita	Dottorando	BIO/07
ANSALONI	Ivano	Scienze della vita	Ricercatore	BIO/07
SIMONINI	Roberto	Scienze della vita	Ricercatore	BIO/07

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39. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Cellular and Molecular Neuropharmacology
Descrizione	The research activity focus mainly on the pharmacological regulation of synaptic transmission by endogenous (neurosteroids, thyroid hormones) or exogenous substances (newly synthetized drugs, natural origin extracts). Current research topics include: 1.) Development of allosteric modulators of glutammatergic neurotransmission, (mediated by AMPA, NMDA and Kainate receptors) as novel therapeutic agents for neurodegenerative diseases. 2.) Study of the fast modulatory action of thyroid hormones at the level GABAergic, Glutammatergic e Colinergic neurotransmission. 3.) In vitro evaluation of the pharmacological properties of compounds of natural orgin. 4.) Study of the modulation of by neurosteroids, endogenous regulators of synaptic inhibition and excitation at the level of neuronal networks and analysis of their effect on the biophysical properties of lipid membranes. We are using a functional approach employing electrophysiological techniques (patch -clamp in the whole-cell configuration) and recording synaptic or evoked using both native neurones in dissociated culture, sliced preparations. suitable cell lines or cell lines expressing recombinant receptors. Toxicity experiments are performed in primary cultures.
Sito web	
Responsabile scientifico/Coordinatore	PUJA Giulia (Scienze della vita)

Settore ERC del gruppo:
LS5_11 - Neurological disorders (e.g. Alzheimer's disease, Huntington's disease, Parkinson's disease)
LS7_3 - Pharmacology, pharmacogenomics, drug discovery and design, drug therapy

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
RAVAZZINI	Federica	Scienze della vita	Dottorando	BIO/14
VEZZALINI	Francesca	Scienze della vita	Ricercatore	BIO/14

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40. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	BioPaCT
Descrizione	The biology and pathology of connective tissues is investigated looking at 1) structural and metabolic alterations occurring in skin and in blood vessels during aging, in acquired and in genetic diseases, 2) DNA sequencing and molecular pathways leading to ectopic calcifications (ie. PXE and PXE-like disorders), 3) protein profiling of human fibroblasts in different experimental conditions, 4) structural and biological characterization of elastin and elastin-derived peptides.
Sito web	
Responsabile scientifico/Coordinatore	QUAGLINO Daniela (Scienze della vita)

Settore ERC del gruppo:
LS2_3 - Proteomics
LS4_4 - Ageing
LS4_5 - Metabolism, biological basis of metabolism related disorders

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BORALDI	Federica	Scienze della vita	Ricercatore	MED/04
BARTOLOMEO	Angelica	Scienze della vita	Dottorando	MED/04

Altro Personale	Costa Sonia (PT)

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41. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Molecular Modelling & Drug Design
Descrizione	The overall goal of our research is to develop and apply innovative computational methodologies for drug design and discovery to address problems at the interface between chemistry, biology and medicine. Research activities focus on modelling protein-ligand interactions, structure-based drug design, molecular dynamics, homology modelling and QSAR. In this respect, we are applying structure-based strategies to design several classes of bioactive compounds targeted to specific diseases, with particular reference to cancer. We are also developing a new procedure for virtual screening based on the integration of docking, molecular dynamics, and free energy-based scoring functions. We are also interested in the discovery of candidate drugs using multitarget drug design strategies.
Sito web	www.mmddlab.unimore.it
Responsabile scientifico/Coordinatore	RASTELLI Giulio (Scienze della vita)

Settore ERC del gruppo:
LS7_3 - Pharmacology, pharmacogenomics, drug discovery and design, drug therapy

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore

CAPORUSCIO	Fabiana	Scienze della vita	Assegnista	CHIM/08
ANIGHORO	Andrew	Scienze della vita	Dottorando	CHIM/08

Altro Personale	Mattioni Federico (PT)

42. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Evolutionary Zoology
Descrizione	Evolutionary biology is the main topic of the research activity. Interests have been focused on several aspects of animal biology integrating field research and laboratory experimentation. The main research topics are: dormancy and life history traits of micrometazons; physiological, biochemical and genetic adaptive mechanisms evolved by animals to inhabit stochastic and hostile to life environments; detection of natural molecules working as bio-protectants against stressful conditions; space biology; reproductive biology; taxonomy, phylogenetic and and biogeographical reconstruction integrating morphological and molecular data; DNA barcoding; alien species with particular attention to insect alien pests and their interaction with plants.
Sito web	http://www.tardigrada.modena.unimo.it
Responsabile scientifico/Coordinatore	REBECCHI Lorena (Scienze della vita)

Settore ERC del gruppo:
LS8_2 - Population biology, population dynamics, population genetics
LS8_3 - Systems evolution, biological adaptation, phylogenetics, systematics, comparative biology
LS8_4 - Biodiversity, conservation biology, conservation genetics, invasion biology
LS8_6 - Biogeography, macro-ecology
LS9_5 - Agriculture related to crop production, soil biology and cultivation, applied plant biology

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BERTOLANI	Roberto	Educazione e scienze umane	Prof. Ordinario	BIO/05
GUIDETTI	Roberto	Scienze della vita	Ricercatore	BIO/05
GIOVANNINI	Ilaria	Scienze della vita	Dottorando	BIO/05
ALTIERO	Tiziana	Educazione e scienze umane	Ricercatore	BIO/05

43. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Gene transfer and genomics
Descrizione	Main activities are: 1) in vitro gene tranfer by viral vectors (adenovirus, retrovirus and lenitvirus); effects of viral integrations in the human genome; Integration site selection and tracking in clonal cell population. Development of genome editing approaches to manipulate and correct genetic defects.
Sito web	
Responsabile scientifico/Coordinatore	RECCHIA Alessandra (Scienze della vita)

Settore ERC del gruppo:
LS7_6 - Gene therapy, cell therapy, regenerative medicine
LS9_1 - Applied genetic engineering, transgenic organisms, recombinant proteins, biosensors

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
COCCHIARELLA	Fabienne	Scienze della vita	Assegnista	BIO/11
LATELLA	Maria Carmela	Scienze della vita	Assegnista	BIO/11
MISELLI	Francesca	Scienze della vita	Assegnista	BIO/11
TURCHIANO	Giandomenico	Scienze della vita	Assegnista	BIO/11

44. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Micological Laboratory
Descrizione	The research activity concerns in general plant biology and phytochemistry, in particular the study of natural and synthetic molecules, in relation to their ability to interfere with the fundamental cellular functions in some specific groups of microorganisms: in particular fungi. Part of the activity is focused on the isolation of endophytic fungi and their use in biotransformation. Schematically the surveys undertaken can be grouped as follows: 1) Search for new natural substances and synthetic antifungal activities and studies of morphofunctional alterations induced in dermatophytic and phytopathogens fungi of the most active compounds. 2) Phytochemical research. Isolation, phytochemical characterization of natural substances and their biological evaluation for a possible bioactive action. 3) Isolation of endophytic fungi as a potential tool for the identification of molecules of pharmaceutical interest.
Sito web	
Responsabile scientifico/Coordinatore	ROMAGNOLI Carlo (Scienze della vita)

Settore ERC del gruppo:
LS9_2 - Synthetic biology, chemical biology and new bio-engineering concepts

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
ANDREOTTI	Elisa	Scienze della vita	Ricercatore	BIO/15

45. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Microbial Biotechnologies and Fermentation technologies
Descrizione	Research activity focuses on the following topics: - fermentative processes for the production of metabolites and/or enzymes with nutraceutical, agro-food, and industrial interest, in particular with the utilization of yeasts and lactic acid bacteria. - function of gut microbiota, probiotics, and prebiotics: application of culture dependent and indepentent techniques to study probiotics and prebiotics, the physiology and the metabolism of intestinal population, to develope innovative probiotic strains with peculiar healthy effects - microbial starters for food biopreservation and transformation, food microbiota composition, and traceability of the starters.
Sito web	
Responsabile scientifico/Coordinatore	ROSSI Maddalena (Scienze della vita)

Settore ERC del gruppo:
LS2_10 - Bioinformatics
LS6_7 - Microbiology
LS9_9 - Applied biotechnology (non-medical), bioreactors, applied microbiology

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
AMARETTI	Alberto	Scienze della vita	Ricercatore	CHIM/11
POPOVIC	Mina	Scienze della vita	Dottorando	CHIM/11
QUARTIERI	Andrea	Scienze della vita	Dottorando	CHIM/11

Altro Personale	Leonardi Alan (PT) Raimondi Stefano (PT)

46. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Soil biology and Biocontrol
Descrizione	Soil ecotoxicology integrating field and laboratory studies: use of standardized methodologies (ISO) and development of innovative tests for the evaluation of soil quality, eco-sustainability of materials for potential agronomic use, assessment and prediction of biological and ecological effects of contaminants from harmful wastes or diffuse pollution on soil biodiversity. In the context of identify strategies of biocontrol of pest insects, an approach is focused on the search of natural compounds, mainly of fungal origin, which affect several traits of biology, such as survival, fecundity, and food preference and which interfere with the processes of selection of the host plant. Study on the interactions between Collembola and soil-borne phytopathogenic fungi and in particular on how fungi influence the life strategy of animals and how these animals influence the passage of fungi from saprotrophic to parasitic phase, thus modulating plant disease.
Sito web	
Responsabile scientifico/Coordinatore	SABATINI Maria Agnese (Scienze della vita)

Settore ERC del gruppo:
LS8_2 - Population biology, population dynamics, population genetics
LS8_9 - Environmental toxicology at the population and ecosystems level

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
D'ERRICO	Michele	Scienze della vita	Dottorando	BIO/05

Altro Personale	Ganassi Sonia (Postdoc)

47. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	NMR Spectroscopy
Descrizione	The aim of the research activity is the determination of the metabolic profile of biofluids (serum, plasma and urines) and tissue samples (both biopsies and chirurgical samples) through High Resolution NMR (on fluids) and HR-MAS NMR (on tissues) spectroscopy. Metabonomics is an approach that involves the comprehensive profiling of the full metabolites in a biological system, and has a great potential for use in the early diagnosis and personalized treatment of various cancers. At a first time, the metabolic profile permits to identify new biomarkers and to monitor the disease. The metabolomic studies through NMR spectroscopy of body fluids may be considered as an alternative analytical approach for diagnosing of inborn errors of metabolism.
Sito web	
Responsabile scientifico/Coordinatore	SCHENETTI Luisa (Scienze della vita)

Settore ERC del gruppo:
LS2_4 - Metabolomics
PE4_3 - Molecular architecture and Structure
PE5 - Synthetic Chemistry and Materials: Materials synthesis, structure-properties relations, functional and advanced materials, molecular architecture, organic chemistry

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
TASSINARI	Francesco	Scienze della vita	Dottorando	CHIM/06

Altro Personale	Zucchi Claudia (PT)

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48. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Botany and in vitro cultures
Descrizione	Plant biodiversity conservation -Ex situ conservation by means of in vitro culture: dormancy breaking and seed germination, plant propagation, with particular reference to terrestrial orchids, in research projects for their reintroduction; clonal propagation, also by somatic embryogenesis, and collections of selected genotypes of woody plants. -Cryopreservation (orchid seeds, meristems). -Seed banking: Triticum aestivum L. ancient and current varieties; Orchidaceae -In situ conservation and valorization of rare and threatened wetlands, i.e. water springs (In Italian: Fontanili, Fontanazzi) inside SICs (Sites of Community Importance) in Province of Reggio Emilia (Po Plain). Plant biodiversity characterization -Characterization of grapevine cultivars within a research project for exploitation and valorization of regional genotypes: morpho-functional characterization of flowers and pollen, study of micro-morphological characters in leaves and berries. -Studies concerning secondary metabolites production in wheat cultivars, with particular reference to phenolic compounds.
Sito web	
Responsabile scientifico/Coordinatore	SGARBI Elisabetta (Scienze della vita)

Settore ERC del gruppo:
LS8_4 - Biodiversity, conservation biology, conservation genetics, invasion biology
LS8_5 - Evolutionary biology: evolutionary ecology and genetics, co-evolution

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
GATTI	Enrico	Scienze della vita	Dottorando	BIO/03
PIRONDINI	Andrea	Scienze della vita	Dottorando	BIO/03

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49. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Bioinorganic Chemistry and Bioelectrochemistry
Descrizione	The main research interest in our lab is the investigation of metal-containing, electron transfer (ET) proteins and enzymes involved in deseases. The aim is twofold: from a fundamental point of view, we are interested in unveiling how the protein structure, dynamics and environmental conditions affect the ET and the catalytic functionality. In parallel, our investigation is devoted to the design of bio(in)organic interfaces, based on the adsorption of metalloproteins on metal electrodes, for biosensing and biocatalysis. This approach makes the application of electrochemical methods also a very attractive strategy for the construction of reagent-less platforms for high-throughput screening of new drug candidates for cancer therapies.

Sito web	
Responsabile scientifico/Coordinatore	SOLA Marco (Scienze della vita)

Settore ERC del gruppo:
LS9_1 - Applied genetic engineering, transgenic organisms, recombinant proteins, biosensors
PE3 - Condensed Matter Physics: Structure, electronic properties, fluids, nanosciences, biophysics
PE3_15 - Statistical physics: phase transitions, noise and fluctuations, models of complex systems
PE4_13 - Theoretical and computational chemistry
PE4_15 - Photochemistry
PE4_2 - Spectroscopic and spectrometric techniques
PE4_9 - Method development in chemistry
PE5_10 - Colloid chemistry
PE5_12 - Chemistry of condensed matter
PE5_3 - Surface modification
PE5_9 - Coordination chemistry

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BORTOLOTTI	Carlo Augusto	Scienze della vita	Ricercatore	CHIM/02
DI ROCCO	Giulia	Scienze della vita	Ricercatore	CHIM/03
MARTINELLI	Ilaria	Scienze della vita	Dottorando	CHIM/03
RANIERI	Antonio	Scienze della vita	Ricercatore	CHIM/02

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50. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Plant Pathology
Descrizione	Development and implementation of detection protocols for plant pathogens. Analysis of seed for the detection of regulated and non-regulated bacteria. Development and implementation of biopesticides. Numerical taxonomy of phytopathogenic bacteria.
Sito web	
Responsabile scientifico/Coordinatore	STEFANI Emilio (Scienze della vita)

Settore ERC del gruppo:
LS1_1 - Molecular interactions
LS8_10 - Microbial ecology and evolution
LS9_5 - Agriculture related to crop production, soil biology and cultivation, applied plant biology

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
DAL PRA'	Mauro	Scienze della vita	Assegnista	AGR/12
GIOVANARDI	Davide	Scienze della vita	Assegnista	AGR/12
MUSSI	Francesca	Scienze della vita	Dottorando	BIO/04

TONTOU	Rodanthi	Scienze della vita	Dottorando	AGR/12

51. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Genome Medicine
Descrizione	Dr. Tagliafico has an active cross-disciplinary genome research in the area of genetics, computational sciences, massive genomics, bioinformatics and molecular biology. The research of Dr. Tagliafico on mainly focused in the area of translational research and biomarker discovery. In particular his works addressed to understanding the genetic aberrations and instability that occur in genetic diseases, and, particularly, hematological malignancies
Sito web	http://www.cgr.unimore.it/
Responsabile scientifico/Coordinatore	TAGLIAFICO Enrico (Scienze della vita)

Settore ERC del gruppo:
LS2_1 - Genomics, comparative genomics, functional genomics
LS2_2 - Transcriptomics
LS7_2 - Diagnostic tools (e.g. genetic, imaging)

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BERNARDIS	Isabella	Scienze della vita	Assegnista	BIO/12
ARTUSO	Lucia	Scienze della vita	Assegnista	BIO/12
ARTUSI	Valentina	Scienze della vita	Dottorando	BIO/12

52. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Molecular pathology of inherited dyslipidemias.
Descrizione	Over the last two decades the laboratory has focused on the molecular and genetic bases of inherited disorders of plasma lipoproteins in humans (dyslipidemias). These disorders are due to alterations of the metabolism of different lipoprotein classes that are collectively designated apoB-containing lipoproteins (LpBs) (VLDL, LDL and Chylomicrons); they include Familial Hypercholesterolemia (FH), Familial Hypobetalipoproteinemia (FHBL), Abetalipoproteinemia (ABL) and monogenic hypertriglyceridemias (HTGs). The laboratory is involved in the investigation of these dyslipidemias with regard to: i) assembly, secretion and catabolism of LpBs, and the organ damage induced by the accumulation or the deficiency of these lipoproteins in the blood; ii) genetic and molecular mechanisms underlying the metabolic changes of LpBs; iii) the search for new candidate genes in those patients in whom mutations in the known candidate genes have been ruled out (Orphan disorders). These studies are conducted within a framework of national and international collaboration involving various Lipids Clinics which identify suitable patients and their families. The general objective of the study is to define genotype-phenotype correlations and set the stage for a personalized treatment of these patients.
Sito web	
Responsabile scientifico/Coordinatore	TARUGI Patrizia (Scienze della vita)

Settore ERC del gruppo:
LS2_6 - Molecular genetics, reverse genetics and RNAi
LS4_5 - Metabolism, biological basis of metabolism related disorders

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
MAGNOLO	Antonia Lucia	Scienze della vita	Assegnista	MED/04

Altro Personale	Simone Luisa (PT)

53. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	MeioLab
Descrizione	Primary research interests concern the faunistic, sistematics, biogeography and ecology of lower Metazoa and Crustacea. Studies are focussed on a group of animals, collectively known as the meiofauna. Meiofauna consist of invertebrate animals small enough to live within the interstices of aquatic sediments (1.0-0.063 mm in total body size), and almost every major phylum has interstitial representatives, with some phyla being exclusively meiofaunal. We are interested in reconstructing evolutionary relationships within and among such groups as Gastrotricha, Loricifera, Priapulida, kynorincha and marine Harpacticoida using advanced microscopy and molecular approaches. We are also interested in verifying the physical, chemical and biological factors influencing the distribution and abundance of meiofaunal organisms, and in assessing the impact that stress of natural as well as anthropogenic origin have on marine meiobenthic communities.
Sito web	http://www.gastrotricha.unimore.it/Lab-Photo.htm
Responsabile scientifico/Coordinatore	TODARO Mary Antonio Donatello (Scienze della vita)

Settore ERC del gruppo:
LS8_1 - Ecology (theoretical and experimental; population, species and community level)
LS8_4 - Biodiversity, conservation biology, conservation genetics, invasion biology
LS8_5 - Evolutionary biology: evolutionary ecology and genetics, co-evolution

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
SALA	Luigi	Scienze della vita	Ricercatore	BIO/05

54. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Miogenlab
Descrizione	Prof. Tupler Laboratory is devoted to research on neuromuscular diseases. The laboratory examined over 2130 myopathic unrelated patients and 633 families for a total of 4248 subjects. Prof. Tupler established the Italian National Registry for Facioscapuloumeral muscular dystrophy. The laboratory runs three major reseach lines: 1- genotype phenotype correlation studies to define which other factors contribute to the development of FSHD; 2- functional and molecular analysis of mouse models for muscular dystrophy; 3- analysis of chromatin structure in patients affected by FSHD. Through diverse approaches Prof. Tupler plans to: 1) investigate novel causes for the appearance of FSHD disease; 2) provide critical information for prognosis and genetic counseling of people affected with FSHD; 3) generate tools for the development of therapeutic or preventive strategies. The laboratory provides molecular diagnosis, genetic analysis and genetic counseling for patients and families with facioscapulohumeral muscular dystrophy (FSHD). The laboratory coordinates the Italian Nation Registry for FSHD. The laboratory holds more than 3500 DNAs and over 2000 cell lines from patients, relatives and controls.
Sito web	
Responsabile scientifico/Coordinatore	TUPLER Rossella Ginevra (Scienze della vita)

Settore ERC del gruppo:
LS1_1 - Molecular interactions
LS2_1 - Genomics, comparative genomics, functional genomics
LS2_2 - Transcriptomics
LS2_6 - Molecular genetics, reverse genetics and RNAi
LS2_8 - Epigenetics and gene regulation

LS2_9 - Genetic epidemiology
LS3_9 - Development, developmental genetics, pattern formation and embryology in animals
LS4_1 - Organ physiology and pathophysiology
LS7_2 - Diagnostic tools (e.g. genetic, imaging)

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
CORTINI	Margherita	Scienze della vita	Assegnista	MED/03
GHIARONI	Valeria	Scienze della vita	Assegnista	MED/03
GOVI	Monica	Scienze della vita	Assegnista	MED/03
MELE	Fabiano	Scienze della vita	Assegnista	MED/03
NIKOLIC	Ana	Scienze della vita	Dottorando	MED/03
RICCI	Giulia	Scienze della vita	Dottorando	MED/03

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55. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Chemometrics, Imaging and Spectroscopy
Descrizione	The research activities of CHIMSLAB are focused on the development of fast and non-destructive analytical methods for the characterization of complex matrices, mainly in the context of agricultural and food science. In particular, the competence of the laboratory include: implementation and application of chemometric algorithms for the characterization of food and of raw materials chemical mapping and early defects detection by hyperspectral imaging digital image processing for color quantification and for defects detection in food and raw materials food characterization by NIR spectroscopy product and process optimization by Design of Experiments
Sito web	
Responsabile scientifico/Coordinatore	ULRICI Alessandro (Scienze della vita)

Settore ERC del gruppo:
LS9 - Applied life Sciences a nd Non-Medical Biotechnology: Agricultural, animal, fishery, forestry and food sciences; biotechnology, genetic engineering, synthetic and chemical biology, industrial biosciences; environmental biotechnology and remediation
PE4 - Physical and Analytical Chemical Sciences: Analytical chemistry, chemical theory, physical chemistry/chemical physics

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
FOCA	Giorgia	Scienze della vita	Ricercatore	CHIM/01
FERRARI	Carlotta	Scienze della vita	Dottorando	CHIM/01
SALVO	Davide	Scienze della vita	Dottorando	CHIM/01

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56. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	TE.FAR.T.I.
	Research involves the application both in traditional pharmaceutical technology (formulation, optimization and characterization of conventional dosage forms to stabilize new drugs, or testing new polymers and excipients) and in the field of innovative pharmaceutical nanotechnology. Particularly, the research is focused on nanomedicine and theranostic fields in collaboration with several academic groups: 1. Drug delivery and targeting: formulation and characterization of micro and nanosystems (unmodified and modified

Descrizione	polymeric or colloidal carries like microsphere, polymeric nanoparticles, liposomes, lipidic-based systems and nanoemulsion) a) to increase the bioavilability (i.e. antitumaral drug such as Nutlin), b) to stabilize and prolong the release of drugs and genetic materials (i.e. oligo and siRNAs), c) to cross BBB and to selectively target different CNS cell populations, d) to selectively target tumoral cells, e) to promote the endo-lysosomal escape and cytoplasmatic release. 2. Formulation, characterization and application of multifunctional nanomedicines (QD - polymeric nanoparticles) for multimodal imaging (i.e. tracking of carriers and drug delivery). 3. Tissue engineering/Collegen matrices (scaffolds, sponges and membranes), to be applied in the field of tissue regeneration
Sito web	www.tefarti.unimore.it
Responsabile scientifico/Coordinatore	VANDELLI Maria Angela (Scienze della vita)

Settore ERC del gruppo:
LS7_3 - Pharmacology, pharmacogenomics, drug discovery and design, drug therapy
PE5_10 - Colloid chemistry

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
BELLETTI	Daniela	Scienze della vita	Assegnista	CHIM/09
FORNI	Flavio	Scienze della vita	Prof. Ordinario	CHIM/09
RUOZI	Barbara	Scienze della vita	Ricercatore	CHIM/09
TOSI	Giovanni	Scienze della vita	Ricercatore	CHIM/09
VERATTI	Patrizia	Scienze della vita	Dottorando	CHIM/09

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57. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Biochemistry and Glycobiology
Descrizione	Glycobiology and Glycomics. Structure and function of glycoconjugates, proteoglycans and complex polysaccharides. Biocompatible materials (biomaterials). Drugs SYSADOA (slow acting drugs). Study of the structure and function of complex polysaccharides and their degradation products in biological fluids, tissues and cells. Structural and functional characterization of complex polysaccharides (glycosaminoglycans) in invertebrates. Production and purification of acidic polysaccharides from bacteria by fermentation processes. Biotechnological modifications of natural polysaccharides complexes for therapeutic use. Study of the structure and function of complex oligosaccharides in biological fluids, tissues and cells. Study of the structure and function of glycoproteins in biological fluids, tissues and cells. Intolerances to food proteins in humans. Structural characterization of polyphenols and phenolic acids in active ingredients for pharmaceutical use and characterization of their antioxidant properties. Characterization of fatty acids in various simple and complex food, biological, pharmaceutical and nutraceutical matrices. Separation in HPLC, capillary electrophoresis, gas chromatography, horizontal and vertical electrophoresis of active biomolecules in various food, biological, pharmaceutical and nutraceutical matrices.
Sito web	
Responsabile scientifico/Coordinatore	VOLPI Nicola (Scienze della vita)

Settore ERC del gruppo:
LS1 - Molecular and Structural Biology and Biochemistry: Molecular synthesis, modification and interaction, biochemistry, biophysics, structural biology, metabolism, signal transduction
LS2 - Genetics, Genomics, Bioinf ormatics and Systems Biology: Molecular and population genetics, genomics, transcriptomics, proteomics, metabolomics, bioinformatics, computational biology, biostatistics, biological modelling and simulation, systems biology, genetic epidemiology
LS3 - Cellular and Developmental Biology: Cell biology, cell physiology, signal transduction, organogenesis, developmental genetics, pattern formation in plants and animals, stem cell biology
LS4 - Physiology, Pathophysiology and Endocrinology: Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular disease, metabolic syndrome

LS5 - Neurosciences and Neural Disorders: Neurobiology, neuroanatomy, neurophysiology, neurochemistry, neuropharmacology, neuroimaging, systems neuroscience, neurological and psychiatric disorders
LS7 - Diagnostic Tools, Therapies and Public Health: Aetiology, diagnosis and treatment of disease, public health, epidemiology, pharmacology, clinical medicine, regenerative medicine, medical ethics

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
GALEOTTI	Fabio	Scienze della vita	Dottorando	BIO/10
MACCARI	Francesca	Scienze della vita	Ricercatore	BIO/10

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58. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Applied Biology
Descrizione	The lab focuses on the study of the role of mRNA binding proteins belonging to the Tristetraprolin family in cancer and inflammatory deseases.
Sito web	
Responsabile scientifico/Coordinatore	ZANOCCO MARANI Tommaso (Scienze della vita)

Settore ERC del gruppo:
LS1_1 - Molecular interactions
LS3_8 - Signal transduction
LS4_6 - Cancer and its biological basis

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
MONTORSI	Lucia	Scienze della vita	Dottorando	BIO/13
SALTARI	Annalisa	Chirurgico, medico, odontoiatrico e di scienze morfologiche con interesse trapiantologico, oncologico e di medicina rigenerativa	Dottorando	MED/05

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59. Scheda inserita da questa Struttura ("Scienze della vita"):

Nome gruppo*	Gene expression
Descrizione	My lab has since long been interested in the transcriptional control of developmental processes, especially those regulated by Hox genes and their co-factors. In the past years our main focus has shifted on the involvement of Hox transcription factors in cell cycle control and tumorigenesis, and on post-transcriptional regulatory mechanisms. The two main research topics we are currently exploring are: Study of the mechanisms underlying the perturbation of cell cycle control by NUP98-HOX and other NUP98 fusion oncoproteins; Study of the transcriptional regulation of miR196b and of the CDX2-miR196b-GATA6 regulatory network in colon carcinoma.
Sito web	
Responsabile scientifico/Coordinatore	ZAPPAVIGNA Vincenzo (Scienze della vita)

Settore ERC del gruppo:
LS2_8 - Epigenetics and gene regulation

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
FANTINI	Sebastian	Scienze della vita	Assegnista	BIO/11
SALSI	Valentina	Scienze della vita	Assegnista	BIO/11

60. Scheda inserita da altra Struttura ("Educazione e scienze umane"), tra i componenti risultano persone afferenti a questa Struttura:

Nome gruppo*	Qualità suolo urbano e gestione del verde
Descrizione	Questo gruppo di ricerca opera nellambito di un progetto europeo, per il quale si è fatta domanda a fine 2014, mirato ad indagare i fattori legati alla promozione della qualità del suolo urbano e alla gestione del verde. Nellambito del Progetto ICHANGE (Integrated CompreHensive Approaches on soil maNagement for planning urban Green arEas) operano Dino Giovannini (responsabile), Loris Vezzali, Roberta Cardarello, Maja Antonietti, Enrico Francia (Università di Modena e Reggio Emilia, Dipartimento di Scienze della vita), Justyna Milc (Università di Modena e Reggio Emilia, Dipartimento di Scienze della vita), Pinuccia Montanari (Biblioteca Universitaria Interdipartimentale di RE), Jim Hall (University of Oxford, UK). Pietro Ugolini (Università di Genova), Corrado Schenone (Università di Genova), Francesca Pirlone (Università di Genova), Laura Montanari (Comune di Reggio Emilia), Giovanni Ferrari (Comune di Reggio Emilia).
Sito web	
Responsabile scientifico/Coordinatore	GIOVANNINI Dino (Educazione e scienze umane)

Settore ERC del gruppo:
SH3_1 - Environment, resources and sustainability
SH3_8 - Mobility, tourism, transportation and logistics

Componenti:

Cognome	Nome	Struttura	Qualifica	Settore
CARDARELLO	Roberta	Educazione e scienze umane	Prof. Ordinario	M-PED/03
FRANCIA	Enrico	Scienze della vita	Ricercatore	AGR/02
ANTONIETTI	Maja	Educazione e scienze umane	Ricercatore	M-PED/03
VEZZALI	Loris	Educazione e scienze umane	Ricercatore	M-PSI/05