



COMPETITION FOR 90 POST-DOC TYPE A TWO YEARS FELLOWSHIPS, FOR A COLLABORATION TO RESEARCH ACTIVITIES

THE RECTOR

- CONSIDERING** Law May 9th 1989 no. 168;
- CONSIDERING** Statuto of Università degli Studi di Milano,
- CONSIDERING** paragraph 4 art. 22 Legge 240/2010 which establishes that subjects as from paragraph 1 of the same article rule by special regulations the assignment of Fellowships ;
- CONSIDERING** Regulations concerning the assignment of Fellowships for collaboration to research activities (hereinafter Regulations) issued by Rector's decree n. 272623 on 24th February 2011 in particular art. 2 of the Regulations which rules the institution of fellowships to be charged to University budge;
- CONSIDERING** Decreto del Ministro dell'Istruzione, dell'Università e della Ricerca which establishes the minimum amount;
- CONSIDERING** art 5 paragraph 2 of Regulations, which establishes the maximum amount assignable;
- AS** Consiglio d'Amministrazione on 14th December 2010 financed 90 new fellowships for 2011 with approval of University budget;
- AS** Senato Accademico on 12th April 2011 has divided the 90 fellowships for research activity among scientific areas established at University, decided criteria for assessment of candidate's research projects, qualifications, scientific-professional curriculum, decided the date of publication of the present Competition notice and the date within the candidate has to hold PHD degree or medical Specialty;
- CONSIDERING** Senato Accademico on 17th February 2010 and Consiglio di Amministrazione on 23rd February 2010 approved "Progetto Dote Ricercatore" financed by Regione Lombardia which establishes co-financing of Post Doc Type A Fellowships for the years 2010-12;
- AS** by Act n. 3233 on 31st March 2010 Regione Lombardia approved co-financing available for University to finance the Research Project presented and the establishment for 2011 of 90 Post doc Type A Fellowships;

ORDAINS

Art. 1 - As from art. 22 law 240 on December 30th 2010 and of art. 2 of Regulations concerning fellowships for a collaboration to research activities, University of Milan has launched a competition by qualifications and interview to award 90 two years fellowships (possibly renewable) for a collaboration to research activities co-financed by Regione Lombardia within "Progetto Dote Ricercatori" restricted to doctorate



graduates or graduated holding a diploma in the speciality area of medicine (medical), or health area according to D.M. n. 176 1st August 2005 (list in *Enclosure 1*- is a part of the present Competition notice).

The 90 fellowships , divided among the scientific areas established at University, are the following:

SCIENTIFIC AREAS	N° ASSEgni DI RICERCA
1. Mathematics	3
2. Physics	4
3. Chemistry	5
4. Geology	2
5. Biology	10
6. Information Sciences	3
7. Medicine	20
8. Agricultural Sciences	7
9. Veterinary Sciences	6
10. Pharmaceutical and pharmacological Sciences	5
11. Law	8
12. Humanities (ancient history, philology, letters, art history)	6
13. History, Philosophy, Pedagogy, Psychology	5
14. Economics and statistics	3
15. Political Sciences and Sociology	3
	90

Art. 2 - REQUIREMENTS AND INCOMPATIBILITIES

All those who have earned a PhD and graduated holding a diploma in the speciality area of medicine (medical) can participate in the public competition; in both cases candidates must have proper scientific-professional curriculum to carry out research activity.

Both degrees must have been earned after 30th May 2006, otherwise the candidate will be excluded from the competition. Candidates holding degrees earned abroad (PhD or specialty in medical area) must send together with the application form the degrees translated by an official translator into Italian and certified by the Authorities of the country releasing the degree (unless exempted according to International Agreements). Each degree must be brought with "Declaration of local value" released by Italian Diplomatic Office (Embassy or Consulate) in the country where the degree was earned. In case the degree was already declared equivalent, the candidate must enclose the related documents.

Candidates must send the application form and the description of a research project to be developed with reference to only one subject among those established in *Enclosure 2*), part of this competition notice. The candidates are asked to develop the project, the abstract and the curriculum in English.

Absence of criminal prosecution is required.

According to laws in force a maximum of four years among fellowships; only those who have not exceeded such limit can participate in this competition and anyway who can still take advantage of a two years



fellowship.

Relatives and in-laws within the fourth degree included of a professor member of the Department or the Structure requiring the institution of the Fellowship, or of the Rector, the General Director or a member of Consiglio di Amministrazione of the University cannot participate in the competitions for the assignment of fellowships.

Employed staff in University and in other bodies as from art. 22 paragraph 1, Legge 240 30th December 2010 can participate in the competition, but must resign in case of winning the Fellowship.

Civil Servants in different bodies from those mentioned in the paragraph above can be awarded the fellowship but must be put on leave without salary for the duration of the Fellowship.

Fellows awarded other grants can participate but must renounce other grants in case of winning the fellowship.

The qualifications must be held within the deadline established for the presentation of the application form, except for what established for the PhD degree and the medical speciality, which, according to art. 2 paragraph 5 of Regulations and decision by Senato Accademico on 12th April 2011, can be earned within 31 December 2011 or within the stipulation date of the individual contract, if the date is before 31 December 2011.

Art. 3 - APPLICATION FORM AND DEADLINE

The candidates must fill in the application form available on-line at <http://surplus-unimi.cilea.it/ga/registrazione/esterno/index.htm>. This form, although required, does not substitute the paper form which is the result of the form on line. After filling in the application form and related enclosures, candidate will validate and by means of the form on line, print a file and send it to Magnifico Rettore dell'Università degli Studi di Milano by registered letter with return coupon attached (in this case the stamp and date of the post office will be considered) or bring it directly to Ufficio Archivio e Protocollo of Università degli Studi di Milano - Via Festa del Perdono, 7, 20122 Milano- Italy within **6 July 2011**: otherwise he/she will be excluded from the competition.

The Administration is not responsible if communications get lost because the address written by the candidate is not correct or a change of address has been communicated lately or not communicated by the candidate or because of mistakes in delivery due to third parties, chance or force majeure.

Application forms without signature or incomplete or sent after the deadline established will not be accepted.

Forms on-line must contain the following information:

- RESEARCH PROJECT CONCERNING ONE SUBJECT AMONG THOSE ESTABLISHED BY THIS COMPETITION;
- DEGREES: (DEGREE AND FINAL MARK WITH DATE OF ACHIEVEMENT; PHD /SPECIALTY DATE AND PLACE OF ACHIEVEMENT)
- ABSTRACT OF PHD THESIS /SPECIALTY (ALSO IN TEMPORARY VERSION IF NOT DISCUSSED YET);



- SPECIALIZATION DEGREES AND MARKS;
- PUBLICATIONS WITH ALL REFERENCES USEFUL FOR A CORRECT IDENTIFICATION;
- SCHOLARSHIPS AND/OR RESEARCH CONTRACTS, ATTENDANCE OF POST-GRADUATE COURSES, RESEARCH ACTIVITY IN ITALY AND/OR ABROAD, FELLOWSHIPS, SCIENTIFIC-PROFESSIONAL CONTRACTS AND APPOINTMENTS, PARTICIPATION IN CONGRESSES, PATENTS;
- OTHER QUALIFICATIONS PROPERLY CERTIFIED.

The Administration could ask the candidates to bring or send the whole documentation of the publications specified in the list and of any other enclosure attached.

Art. 4 - ASSESSMENT

Application forms will be assessed by one Evaluation Commission (hereinafter called Commissione di Garanzia), made up of nine members selected among professors in this University, which will take avail itself of at least two external experts (for each application or for applications concerning the same subject). The list of examiners is established according to art. 2 paragraph 8 of Regulations and approved by Rector's decree.

Each examiner can use up to 12 points, to be divided as follows:

- assessment of the candidate's scientific-professional curriculum up to 6 points
- assessment of the project up to 6 points

The evaluation criteria for candidates' scientific qualifications and scientific-professional curriculum are the following:

- degree mark ;
- PhD thesis;
- specialization degrees and marks;
- attendance of post-graduate courses;
- research activity in Italy;
- research activity abroad;
- *fellowships*, scientific-professional contracts and appointments;
- participation in scientific congresses;
- scientific publications and qualification if available;
- monographic publications and chapters in books;
- patents.

Evaluation criteria for research projects are the following:

- relevance of the project to the subject suggested by the Department;
- originality of the research suggested;
- updating of the project with reference to knowledge acquired;
- appropriate bibliographic reference;
- potential achievement of the project in the space and time available;
- relevance of results potentially achievable.

In case of incomplete or insubstantial evaluation and in case of discrepancy between two evaluations, superior or equal to 6 points, Commissione di Garanzia can ask for a third assessment.

Commissione di Garanzia, on the basis of marks given by referees and after examining consistency and relevance of procedure, forms a ranking for each area related to the posts. The marks given to



qualifications will be given by summing up the two marks earned by each candidate. In case of three assessments, the mark will be given by the average of the three values obtained, expressed in twenty-fourths.

The result of the assessment of the project and of the scientific qualifications of each candidate will be posted up and published in the University web-site.

Candidates who have not earned at least 7 points from at least two examiners are excluded from the ranking.

Candidates in the ranking and placed in position increased of 50% (to round up to the next integer) with reference to the number of posts indicated in the competition notice for the corresponding scientific area, can take part in the interview. The number of those who can take part in the interview can be higher in case more candidates occupy with equal marks the last position available.

The interview will take place with a Commission established by the Rector and suggested by Commissione di Garanzia and made up of a member of Commissione di Garanzia, who is the president, of the president or other member of Comitato d'Area and, as third member, of Director of the Department concerned or of a delegate.

The Commission in charge of the interview can use up to 5 points for each candidate.

The candidates who have to sit for the interview will be called by e-mail at the address communicated by the candidate in the application form; in case of absence, candidates will be automatically excluded from the final ranking.

If the interview shows inconsistency and/or evident incapability in carrying out the project presented, examining commission can suggest Commissione di Garanzia to exclude the candidate by giving proper justification.

Commissione di Garanzia, at the end of the assessment of the candidate, the research project and the interview, will publish the result of the assessment for each candidate and will form a ranking of the candidates, with reference to the marks earned and to posts available for each area. Assessment must end within six months since the transmission, to the referees, of the subjects and the related projects.

If marks, gained in the same scientific area, end in a tie, the fellowship will be assigned to the younger candidate.

Art. 5 - FELLOWSHIP AWARDING

The Rector will communicate, by registered letter at the address in the application form, the awarding of the fellowship to the winners.

Within the deadline mentioned in the communication, the winner must send to the Rector the acceptance declaration required by the Administration, otherwise he/she will lose the post; afterwards he/she will be called to stipulate a contract.

The contract conditions are ruled by Regulations concerning fellowships for collaboration to research activity of University of Milan.

The fellowship implies the achievement of the research project suggested by the candidate, under the



supervision of the Scientist-in-charge and at the related structure. The Scientist-in-charge and the candidate will agree on the activities related to the research project which will be carried out during the fellowship and that will be verified periodically, according to modes established by the individual contract. The awarding of the fellowship does not imply employed work and does not give rights to employment by Universities.

Fellows can participate in the University in commissions for examinations as experts in a specific subject and collaborate to tutoring activities.

The fellowship cannot be added to grants or other types of aid, except for those established for integration of stays abroad, neither with other contracts of collaboration nor with income coming from free lance activities performed with continuity. Extra-university activities as speaker in seminars, conferences or publishing activities and a limited activity of self-employed work are compatible with the fellowship, upon written communication and in agreement with the scientist-in-charge and upon the condition that such activity is declared compatible by the Structure where the fellow performs research activity and does not imply interest conflicts with the research activity performed for the University. Self-employed work cannot exceed the income limits established by Consiglio di Amministrazione equal to a gross yearly amount of 15.000 Euros, with exclusion of remuneration coming from copyright.

Art. 6 - REMUNERATION

The yearly gross amount of the fellowship is of 16.850,00 Euros. The amount does not include expenses for industrial accident insurance and public liability insurance which are charged to the University. The amount is tax free (Irpef exempt) according to art. 4 of Law August 13th 1984 no. 476 and subjected, for what concerns social insurance, to rules as from art. 2, paragraph 26 and following of Law August 8th 1995 no. 335. The amount is paid in monthly postponed instalments.

Art. 7 - ACCEPTANCE AND SIGNING OF THE CONTRACT

Declarations and certifications of acceptance sent by registered letter with reply coupon attached within fifteen days (the stamp and date of the post office will be considered) since the communication by the Rector or brought directly to the appropriate office will be taken into account.

Personal facts and qualities self-attested by the winner of the competition will be checked properly by the University, also by sample, in order to verify their truth.

The winners will be called to stipulate the contract of collaboration to research activity, which will start from the first day of the month following the signature, except justified request of exception by the candidate in agreement with the Scientist-in-charge and anyway for not more than 90 days.

For non-EC subjects the fellowship will start after obtaining the visa for self-employed work and the actual beginning of the research activity.

Art. 8 - LOSS OF THE RIGHT TO THE FELLOWSHIP AND CANCELLATION OF THE CONTRACT

, can be earned within 31 December 2011 or within the stipulation date of the individual contract, if the



date is before 31 December 2011.

If the contract is not signed within the deadline mentioned by the appropriate office or if the candidate does not achieve the PhD/medical specialty within 31 December 2011 or within the stipulation date of the individual contract (if the date is before 31 December 2011) the winner will lose every right to the fellowship.

In case of loss of the right to the fellowship or of renounce by the winners, the fellowships are made available to candidates placed usefully in the ranking. The ranking is valid for 180 days since its approval.

The winners of the fellowships who do not attain themselves to what established by this competition notice and to the Regulations mentioned above will lose every right to the fellowship by means of a Rector's Act upon written notification.

During collaboration activity, if the Fellow does not carry out regularly research activity, without justified reason, or is responsible of serious and continuous malpractice, the procedure of cancellation of the contract will be started, on request of the Scientist-in-charge.

Art. 9 - REFERENCE

For what is not established by this competition notice please refer to the Regulations concerning fellowships for research activity issued by Rector's Decree on April 30th 2010 no. 267916 and the rules in force about the subject.

Art. 10 - PERSONAL INFORMATION

According to D.L. 196/03 University will commit itself to respect all confidential information provided by the candidate: "all information provided will be handled only for aims connected to the selection and to the stipulation and management of relationship with University".

Art. 11 - COMPETITION MANAGEMENT

According to Law August 7th 1990 no. 241, the Head of Office in charge of the competition is Mrs Alessandra Catellani Ufficio Contratti di Formazione e Ricerca at Divisione Stipendi e Carriere del Personale - Via S. Antonio n. 12, Milano.

Reg. al 0173888 del 30/5/2011

Reg. al 0273919 del 6/6/2011

THE RECTOR
(Enrico Decleva)



UNIVERSITÀ DEGLI STUDI DI MILANO



RegioneLombardia

Enclosure 1

Clinical Biochemistry
Medical Pharmacology
Medical Physics
Health Physics Fisica Sanitaria
Medical Genetics
Microbiology and Virology
Nutrition Science
Clinical Pathology Patologia Clinica



Enclosure 2

Scientific Area	Id subject			TITLE	DESCRIPTION
MATHEMATICS	001	BEIRAO DA VEIGA LOURENCO	DIPARTIMENTO DI MATEMATICA	Preconditioning and domain decomposition for Isogeometric Analysis	Isogeometric Analysis is a recent, quickly growing technology for the numerical solution of PDE problems on CAD domains. The objective of this project is the development, coding and theoretical analysis of domain decomposition preconditioners for IGA
MATHEMATICS	002	ANDREATTA FABRIZIO	DIPARTIMENTO DI MATEMATICA	Arithmetic on local and global fields.	<ul style="list-style-type: none">a. Comparison theorems for cohomology theories and fundamental groups for varieties and motives over local fields.b. Galois representations, modular forms, and families.c. Applications to the study of varieties and motives over global fields.
MATHEMATICS	003	PELOSO MARCO MARIA	DIPARTIMENTO DI MATEMATICA	"Analysis and geometry on CR and Riemannian manifolds: distinguished differential operators and equations, Yamabe equations; geometry of submanifolds."	"Study of distinguished differential operators and differential equations, e.g. of Yamabe-type, on CR and Riemannian manifolds; their submanifolds and interplay between analysis and geometry. Topics related to these ones will also be of interest."
MATHEMATICS	004	VAN GEEMEN LAMBERTUS	DIPARTIMENTO DI MATEMATICA	Geometry and moduli of algebraic varieties.	Study and construction of holomorphic symplectic varieties and Calabi-Yau varieties. The study of varieties of general type, in particular curves and surfaces. Derived categories and automorphisms. Moduli of algebraic varieties, vector bundles and sheaves



MATHEMATICS	005	MANTOVANI SANDRA	DIPARTIMENTO DI MATEMATICA	Categorical algebra for applications in (non-abelian) homological and universal algebra	Central extensions and homology via commutator rel. to Birkhoff subcategories by using Galois theory in homological categories, cohomology of internal (pre)crossed modules in action accessible categories and in 2-dimensional contexts, as cat-groups.
MATHEMATICS	006	FRITTELLI MARCO	DIPARTIMENTO DI MATEMATICA	Mathematical Finance	Application of mathematical methods, within the areas of probability, of stochastic processes, of optimization theory, of convex and functional analysis, in order to analyze problems arising in Financial Mathematics and to define new approaches for the valuation and the control of financial risk.
PHYSICS	007	BRACCO ANGELA	DIPARTIMENTO DI FISICA	Studies of Nuclear Structure and Nuclear Reactions in exotic nuclei and their astrophysical Applications. http://www.fisica.unimi.it/postdoc2011/tema	The activity is in experimental and/or theoretical nuclear physics. Experimental activities are in nuclear structure or nuclear reactions of astrophysical interest Theory concentrates on developments and applications of new many-body techniques.
PHYSICS	008	PODESTA' ALESSANDRO	DIPARTIMENTO DI FISICA	Nanoscience and nanotechnology	Study of interfacial properties of ionic liquids for applications to energy and nanomaterials; Metal-polymer nanocomposites for biomedical, sensoristic and optoelectronic applications. http://www.fisica.unimi.it/postdoc2011/tematiche
PHYSICS	009	MIRAMONTI LINO	DIPARTIMENTO DI FISICA	Experimental Elementary Particle, Astroparticle, and Solar Neutrino Physics	ATLAS data analysis on photon, Higgs, top physics and supersymmetry; SUPER_B Standard Model and new physics in e+e-; BOREXINO solar neutrinos and their oscillations; AUGER UHE Cosmic Rays. http://www.fisica.unimi.it/postdoc2011/tematiche



PHYSICS	010	LASCIALFARI ALESSANDRO	DIPARTIMENTO DI SCIENZE MOLECOLARI APPLICATE AI BIOSISTEMI	Magnetic nanostructures : fundamental properties and applications	We will investigate the local spin dynamics and eventual quantum effects at low temperature in magnetic nanostructures, by means of magnetization, magnetic susceptibility and Magnetic Resonance experimental techniques.
PHYSICS	011	LOMBARDI MARCO	DIPARTIMENTO DI FISICA	A study of the distribution of dark matter in galaxies and galaxy clusters from strong gravitational lensing	The main goal of this project is a systematic study of strong gravitational lenses, with a characterization of the dark and luminous matter distribution in the central regions of massive galaxies and galaxy clusters.
PHYSICS	012	CARACCIOLLO SERGIO	DIPARTIMENTO DI FISICA	Fundamental interactions and critical phenomena	Field theory is the essential tools both in theoretical high- energy physics to describe fundamental interaction as in the description of lower energy collective phenomena, to understand critical behaviour.
PHYSICS	013	CANTU' LAURA FRANCA	DIPARTIMENTO DI CHIMICA, BIOCHIMICA E BIOTECNOLOGIE PER LA MEDICINA	Experimental study of biological soft matter, complex fluids and systems of biomedical relevance	The research focuses on the study of supramolecular organization. The study could combine different techniques: scattering of light, neutrons or x-rays; microscopy; calorimetry; fluorescence; magnetic resonance; numerical simulation.
PHYSICS	014	CIALDI SIMONE	DIPARTIMENTO DI FISICA	Quantum optical phenomena for applications and experiments on foundations.	The research activity concerns the development of experimental apparatus for generating non-classical radiation for application in the field of quantum information and for fundamentals study in quantum mechanics.
CHEMISTRY	015	DALLAVALLE SABRINA	DIPARTIMENTO DI SCIENZE MOLECOLARI AGROALIMENTARI	Design, synthesis and biological activity of novel dual anticancer drugs	Aim of the work will be the design and synthesis of anticancer hybrid agents obtained by incorporation of two active moieties in a single molecule to exert a dual drug action. The study of stable or in vivo labile linkers will be carried out.



CHEMISTRY	016	RANUCCI ELISABETTA	DIPARTIMENTO DI CHIMICA ORGANICA E INDUSTRIALE	Bioactive and biocompatible polyamidoamines with potential as macromolecular drugs and carriers for the intracellular delivery of biomacromolecules	New polyamidoamines with definite potential as antiviral agents and as pH-responsive endosomolytic vectors for intracellular delivery of proteins and genes will be designed and synthesized (P. Ferruti et al. Macromol. Rapid Commun. 2002, 23, 332).
CHEMISTRY	017	ROSSETTI ILENIA GIUSEPPINA	DIPARTIMENTO DI CHIMICA FISICA ED ELETTROCHIMICA	Hydrogen production from renewable sources: steam reforming of bioethanol and glycerol	Investigation (demonstration scale) on H ₂ production by steam reforming of bioethanol and its purification to feed a 5 kW _{el} + 5 kW _t PEM fuel cell. Development of innovative catalysts for ethanol and glycerol steam reforming.
CHEMISTRY	018	POTENZA/ANNUNZIATA	DIPARTIMENTO DI CHIMICA ORGANICA E INDUSTRIALE	Structural analysis and study of intermolecular interactions of biomolecules by Nuclear Magnetic Resonance spectroscopies	The research project concerns the study of the structure and the interaction of biological molecules, both natural and synthetic, through nuclear magnetic resonance spectroscopy techniques (in solution, HR-MAS, CP-MAS)
CHEMISTRY	019	TANTARDINI GIAN FRANCO	DIPARTIMENTO DI CHIMICA FISICA ED ELETTROCHIMICA	Electronic and Transport Properties of Defective Carbon Nanostructures	Study of the effects that "chemical defects" (adsorbed species) have on the electronic and transport properties (charge doping and redistribution effects of relevance for electron scattering, midgap states, etc.) according to their structural stability (diffusion, desorption, reactions) and with emphasis on the possibility of substrate functionalization.
CHEMISTRY	020	SELLI ELENA	DIPARTIMENTO DI CHIMICA FISICA ED ELETTROCHIMICA	Development of efficient and sensitive photocatalysts for solar energy conversion and environmental applications	Synthesis, characterization and activity tests of nanostructured photocatalytic materials, based on mixed, doped and/or surface-modified semiconductors, for solar into chemical energy conversion and for the abatement of water and air pollutants



CHEMISTRY	021	PIZZOTTI MADDALENA	"DIPARTIMENTO DI CHIMICA INORGANICA, METALLORGANICA E ANALITICA ""LAMBERTO MALATESTA""	Push-pull porphyrins with organometallic or coordination donor groups as sensitizers in DSSC solar cells or for applications in optoelectronic s.	Design, synthesis, photophysical and electrochemical characterisation of push-pull porphyrins with organometallic or coordination donor groups and with one or more carboxylic groups as acceptors. Applications in DSSC cells or in optoelectronics.
CHEMISTRY	022	SIRONI ANGELO	DIPARTIMENTO DI CHIMICA STRUTTURALE E STEREOCHIMICA INORGANICA	Structural behaviour of porous MOF as a function of pressure, temperature and different guests	We plan to study, by high pressure (1-100 Bars) XRPD, the structural modifications of porous Metal Organic Frameworks induced by the adsorption of small molecules (H ₂ O, CO ₂ , CH ₄ , C ₂ H ₂ , H ₂ , CO, Xe ...) at different temperatures and pressures
CHEMISTRY	023	GELMI MARIA LUISA	DIPARTIMENTO DI SCIENZE MOLECOLARI APPLICATE AI BIOSISTEMI	Design and synthesis of functionalized heterocyclic systems containing 'privileged structures'	Synthesis of aromatic and non-aromatic heterocyclic scaffolds functionalized with suitable pattern following original methodologies
CHEMISTRY	024	GENNARI CESARE MARIO ARTURO	DIPARTIMENTO DI CHIMICA ORGANICA E INDUSTRIALE	New supramolecular transition metal catalysts for enantioselective reactions	The field of supramolecular catalysis has been recently reviewed by C. Gennari and co-workers in Dalton Trans. 2011, 40, 4355-4373.
GEOLOGY	025	FUMAGALLI PATRIZIA	"DIPARTIMENTO DI SCIENZE DELLA TERRA ""ARDITO DESIO""	The effect of mantle rocks chemical compositional heterogeneity on phase relations at divergent margins: an experimental study	The Earth's Mantle heterogeneity controls phase relations. High pressure experiments allow to define petrological markers to depict the baric evolution of mafic-ultramafic rocks at divergent margins
GEOLOGY	026	NICORA ALDA	"DIPARTIMENTO DI SCIENZE DELLA TERRA ""ARDITO DESIO""	Analyses of the conodonts biodiversity in the Upper Triassic and their worldwide correlability	"-morphological and statistical analyses of the Upper Triassic conodonts. -correlability of the conodont faunas amongst separate provinces in support to the GSSPs definition. -investigations on the causes influencing the conodonts biodiversity



GEOLOGY	027	TARTAROTTI PAOLA	"DIPARTIMENTO DI SCIENZE DELLA TERRA ""ARDITO DESIO"""	Multiscalar approach for studying the structure of continental and oceanic active margins	The research investigates the relationships between structure, metamorphism, and igneous activity in active margins by a multi-scalar approach, for identifying the effective tectonic processes operating at various structural levels
GEOLOGY	028	MASETTI MARCO	"DIPARTIMENTO DI SCIENZE DELLA TERRA ""ARDITO DESIO"""	Statistical methods for spatial analysis of groundwater vulnerability: how to deal with temporal data and new contaminants	The main aim of the research is to optimise statistical techniques for groundwater vulnerability assessment by considering contaminant trend analysis and a multi-contaminant approach mainly focused on Endocrine Disruptors
GEOLOGY	029	MAROTTA/SAPLLA	"DIPARTIMENTO DI SCIENZE DELLA TERRA ""ARDITO DESIO"""	Quantitative analysis of the subduction process.	Main objective of the project is to explore the geodynamics of subduction zones by means of a synergic use of numerical modelling and geophysical, geological, structural, petrological and geodetic data, coming from both ancient and present subduction.
BIOLOGY	030	BONOMI FRANCESCO	DIPARTIMENTO DI SCIENZE MOLECOLARI AGROALIMENTARI	Gain and loss of function and structure of proteins on the surface of solid nanoparticles and of lipid-based nanostructures	To verify whether hydrophobic surface of appropriate composition and size may facilitate folding (and therefore function) of proteins and cofactor-containing proteins
BIOLOGY	031	MESSINA GRAZIELLA	DIPARTIMENTO DI BIOLOGIA	Mechanisms regulating skeletal muscle development: from muscle regeneration to muscular dystrophies	1. Analysis of transcription factors and miRNA potentially involved in skeletal muscle post-natal regeneration 2. Study of new cellular and biological approaches for the cures and therapies of the Muscular Dystrophies.
BIOLOGY	032	PRINETTI ALESSANDRO ENNIO GIUSEPPE	DIPARTIMENTO DI CHIMICA, BIOCHIMICA E BIOTECNOLOGIE PER LA MEDICINA	Sphingolipid/caveolin-1 interactions in the modulation of tumor cell invasivity.	Study of the effects of the modulation of caveolin-1 and ganglioside cellular levels (obtained by the mean of genetic manipulation or pharmacological treatment) on the invasivity of tumor cells. Study of caveolin-1-gangliosides interactions.



BIOLOGY	033	RIZZO ANGELA MARIA	DIPARTIMENTO DI SCIENZE MOLECOLARI APPLICATE AI BIOSISTEMI	Effects of omega-3 long chain pufas incorporation in cancer cell membrane microdomains	Aim of study is to demonstrate using bio-physical techniques that n-3 PUFAs alter the size and structure of cancer lipid rafts, and then the activation of cell signaling. The study will be conducted using human cancer cells treated with n -3 PUFAs.
BIOLOGY	034	RIBONI LAURA PIERA CARLA GIULIA	DIPARTIMENTO DI CHIMICA, BIOCHIMICA E BIOTECNOLOGIE PER LA MEDICINA	Role of sphingolipids and sialo-glycoproteins in the self-renewal and apoptosis resistance properties of glioblastoma stem cells	To identify aberrations of sphingolipid and sialo-glycoprotein composition, and of enzymes of their metabolism (sphingomyelinases, sphingosine kinases, sialidases), and to evaluate their impact on proliferative and apoptotic resistance properties of glioblastoma stem cells
BIOLOGY	035	MAZZANTI MICHELE	DIPARTIMENTO DI SCIENZE BIOMOLECOLARI E BIOTECNOLOGIE	Molecular mechanisms of neurodegeneration associated with early functional expression of CLIC1 protein in the mammalian retina	A successful therapy for neurodegenerative diseases is directly linked to the identification of early markers. Our project will consider CLIC1 protein expression changes in the retina neurons as an accessible sensor for preventive diagnosis
BIOLOGY	036	RADAELLI ANTONIA	DIPARTIMENTO DI SCIENZE FARMACOLOGICHE	Generation and evaluation of fowlpox-based recombinants expressing mutated E6 and E7 oncogenes of HPV16 for the immunotherapy of cervical cancer	Two new fowlpox recombinant vaccines against cervical cancer will be generated by inserting separately the HPV16 E6 or E7 mutated non-oncogenic genes with the aim to elicit a protective immunity in the mice model of HPV-induced tumorigenesis.
BIOLOGY	037	SIGNORELLI PAOLA	DIPARTIMENTO DI MEDICINA, CHIRURGIA E ODONTOIATRIA	Autophagy role in hypoxia and hyperoxia: in vivo and in vitro models	Autophagy is a physiologic mechanism controlling cell metabolism under stress such as oxygen and nutrient depletion. Hypoxia hyperoxia and autophagy misfunction are involved in a variety of pathologies.



BIOLOGY	038	VIZZOTTO LAURA	DIPARTIMENTO DI MORFOLOGIA UMANA E SCIENZE BIOMEDICHE - CITTA' STUDI	Morphometric approach to diagnosis and prognosis of adrenal incidentalomas	The aim is the morphometrical assessment of adrenal incidentalomas by using immunohistochemical and conventional stains in order to furnish a better and reproducible characterization of these lesions to consent an earlier diagnosis of these tumors
BIOLOGY	039	MASSIMINI MARCELLO	DIPARTIMENTO DI SCIENZE CLINICHE "LUIGI SACCO"	Electrophysiological investigation of cortical lesions in humans: from basic mechanisms to functional and therapeutic implications	High density electroencephalogram (256 channels) and Transcranial Magnetic Stimulation will be employed to elucidate the mechanisms underpinning the loss of function following brain injury and to provide insights about the recovery process
BIOLOGY	040	MOSCA ANDREA	DIPARTIMENTO DI SCIENZE E TECNOLOGIE BIOMEDICHE	Definition of genetically determined forms in subjects with stroke: correlation with biochemical and clinical phenotype.	Study aimed at the characterization of monogenic forms compared to polygenic forms in patients with stroke for the definition of a standard diagnostic model of rare diseases associated with stroke. Correlation with biochemical and clinical phenotype.
BIOLOGY	041	MANTOVANI ROBERTO	DIPARTIMENTO DI SCIENZE BIOMOLECOLARI E BIOTECNOLOGIE	The combinatorial logic of NF-Y binding to DNA in normal and tumor cells.	Analysis of ChIP-Seq data (ENCODE) to characterize the binding of NF-Y on the human genome, with other transcription factors and with histone post-translational modifications, in normal and cancer cells.
BIOLOGY	042	MINETTI ALBERTO ENRICO	DIPARTIMENTO DI FISILOGIA UMANA	Complex Motor Acts: Energetics and Skills of Accelerated Learning	The process of accelerated learning of complex motor acts, obtained via real-time feedback systems, will be investigated in terms of entropy minimization, metabolic energy saving and motor skills improvements.
BIOLOGY	043	ALLEVI PIETRO	DIPARTIMENTO DI CHIMICA, BIOCHIMICA E BIOTECNOLOGIE PER LA MEDICINA	Studies devoted to define any possible role of the collagen cross-links in human bone fragility in aging, in osteoporosis and in diabetes	Synthesize collagen cross-links and set-up an analytical method for those of natural origin extracted from biological matrices of healthy people and patients. Correlate the results to the evolution of diseases and to the monitoring of treatments



BIOLOGY	044	KATER MARTIN	DIPARTIMENTO DI SCIENZE BIOMOLECOLARI E BIOTECNOLOGIE	Regulatory pathways controlling seed development in rice	The research project will focus on the identification of downstream targets of key regulators of seed development.
BIOLOGY	045	GRASSI FABIO MARIA	DIPARTIMENTO DI BIOLOGIA E GENETICA PER LE SCIENZE MEDICHE	Purinergic regulation of T cell function	T lymphocyte activation determines ATP release through pannexin-1 hemichannels. Autocrine stimulation of purinergic P2 receptors by ATP influences T cell differentiation. The research activity should characterize purinergic regulation of T cell.
BIOLOGY	046	GHIDONI RICCARDO	DIPARTIMENTO DI MEDICINA, CHIRURGIA E ODONTOIATRIA	Novel inhibitors of serine palmitoyltransferase structurally related to myriocin as potential therapeutics for retinitis pigmentosa	Synthesis of new molecules structurally related to myriocin, a natural inhibitor of serine palmitoyltransferase, the enzyme that catalyzes the first step of sphingolipid biosynthesis. Determination of SPT activity in the presence of synthesized inhibitors. Modeling studies and docking experiments about myriocin and synthetic analogues in the active site of STP.
BIOLOGY	047	FORMENTI ALESSANDRO	DIPARTIMENTO DI FISILOGIA UMANA	Kinetic energy recovery systems (KERS, hybrid locomotion) in human powered vehicles.	Human powered locomotion on wheels in the city often needs muscles to provide kinetic energy that has been dissipated during braking. As in hybrid cars, that extra metabolic cost might be reduced via a mechanical energy transformation and storage.
BIOLOGY	048	DE BERNARDI FIORENZA	DIPARTIMENTO DI BIOLOGIA	MiRNAs in morphogenesis and differentiation of basal chordate nervous system	Cloning, spatio-temporal expression and knock-down experiments in ascidian embryos and larvae of miRNAs and their cofactors (Dicer, Drosha, Pasha) predicted as homologous of those expressed in vertebrate CNS
BIOLOGY	049	COTELLI FRANCO	DIPARTIMENTO DI BIOLOGIA	Zebrafish as model system to study genes involved in vertebrates embryonic development and human pathologies	Zebrafish is a powerful model system to study genes involved in Central Nervous System development and human pathologies like huntingtin and MeCP2 using functional/genetics approaches and cellular/molecular biology techniques



BIOLOGY	050	CASARTELLI MORENA	DIPARTIMENTO DI BIOLOGIA	Physiology of absorptive epithelia in insect	Mechanisms of intestinal absorption of macromolecules in insect and novel strategies to enhance the delivery through the midgut barrier of new bioinsecticides (peptides, proteins and dsRNA) able to interfere with insect physiological processes
BIOLOGY	051	COLOMBO LUCIA	DIPARTIMENTO DI BIOLOGIA	Molecular network controlling pistil and fruit development	Fruits derive mostly from mature pistil upon double fertilization. Pistil patterning will be studied to unravel the networks underlying module specification of the Arabidopsis pistil and its transformation into the fruit.
BIOLOGY	052	CIUFFREDA PIERANGELA	DIPARTIMENTO DI SCIENZE CLINICHE "LUIGI SACCO"	Structure-activity relationships of N6-isopentenyladenosine analogues as anti-tumor agents	The goal of this research is to investigate which structural modifications were possible to obtain iPA analogues maintaining biological activity in vitro and in vivo.
BIOLOGY	053	BATTAGLIOLI ELENA	DIPARTIMENTO DI BIOLOGIA E GENETICA PER LE SCIENZE MEDICHE	Epigenetic mechanism of neuronal cell differentiation	The project will consist in the characterization of LSD1 protein, an epigenetic enzyme, in modulating neuronal development. In particular, the research will focus on the identification of new LSD1 protein partners and the regulated target genes.
BIOLOGY	054	BATTAGLIA CRISTINA	DIPARTIMENTO DI SCIENZE E TECNOLOGIE BIOMEDICHE	Genetic screening of recessive diseases by genomic profiling approaches and ultramassive sequencing technology: application to Congenital Hyperinsulin	Using ultramassive sequencing we will analyse the entire exome of patients affected by Congenital Hyperinsulinism in order to find novel genetic variation associated to the disease
BIOLOGY	055	BIASIN MARA	DIPARTIMENTO DI SCIENZE CLINICHE "LUIGI SACCO"	Genetic diversity at endoplasmic reticulum aminopeptidases 2 (ERAP2) is coupled with resistance to HIV-1 infection	To verify if diverse ERAP2 alleles and other genes involved in presentation of peptides by MHC class I molecules to CD8+ cells may influence the susceptibility to HIV infection, possibly altering the quality/quantity of MHC class I-peptide complexes



BIOLOGY	056	BERTONI GIOVANNI	DIPARTIMENTO DI SCIENZE BIOMOLECOLARI E BIOTECNOLOGIE	Novel molecular targets for the development of next- generation antibacterial drugs	In order to develop next- generation antibacterials, novel molecular targets, both proteins and small RNAs, essential for bacterial cell survival, pathogenicity, or biofilm formation will be characterized in different model bacteria.
BIOLOGY	057	BARBUTI ANDREA FRANCESCO	DIPARTIMENTO DI SCIENZE BIOMOLECOLARI E BIOTECNOLOGIE	Derivation of human induced pluripotent stem (iPS) cells for the regeneration of the cardiac conduction system.	The project involves the reprogramming of human fibroblasts into iPS cells, their in vitro pacemaker differentiation and their molecular and functional characterization necessary to validate their use for future regenerative interventions.
INFORMATION SCIENCES	058	CESA BIANCHI NICOLO' ANTONIO	DIPARTIMENTO DI SCIENZE DELL'INFORMAZIONE	Efficient algorithms for link classification in signed networks	Development of a rigorous theory of link classification in signed networks. Characterization of the predictive complexity via the correlation clustering index. Design of efficient algorithms with application to social networks.
INFORMATION SCIENCES	059	RIZZI ALESSANDRO	DIPARTIMENTO DI INFORMATICA E COMUNICAZIONE	A complex model of digital camera acquisition process	Study of non-linearities, noise and embedded processing in digital cameras. Study of limits in dynamic range acquisition due to glare and other optical noise. Alternative methods for HDR images tone rendering and color appearance computation.
INFORMATION SCIENCES	060	SAMARATI PIERANGELA	DIPARTIMENTO DI TECNOLOGIE DELL'INFORMAZIONE (CREMA)	Information Technologies and Methodologies for Security and Privacy in Computer Systems and Networks	"Techniques and methodologies for security, privacy, and data protection; access control policies, models and systems; networks and information system security; formal methods and models for security"
INFORMATION SCIENCES	061	SCARABOTTOLO NELLO	DIPARTIMENTO DI TECNOLOGIE DELL'INFORMAZIONE (CREMA)	Information Technologies and Methodologies for Industrial Applications	Innovation in modelling, monitoring, control, signal/image processing, electronic design, and optimization, with information technologies for industrial, environmental, medical, bioinformatic, logistic, decision-support, and electronic applications.



INFORMATION SCIENCES	062	VALENTINI GIORGIO	DIPARTIMENTO DI SCIENZE DELL'INFORMAZIONE	Hierarchical ensemble methods for the genome-wide prediction of gene functions in human and model organisms	"1. Development of ensemble methods for the prediction of directed acyclic graph-structured classes and of multi-view methods for the integration of complex data. 2. Application to the gene function prediction problem in human and model organisms
INFORMATION SCIENCES	063	LUDOVICO LUCA ANDREA	DIPARTIMENTO DI INFORMATICA E COMUNICAZIONE	Computer-based methods for 3D audio recording, editing and reproduction	The research project aims at studying sound spatialization problems through GPU computing techniques.
INFORMATION SCIENCES	064	AGUZZOLI STEFANO	DIPARTIMENTO DI SCIENZE DELL'INFORMAZIONE	Many-Valued Description Logics: a tool for the representation of vague information	The project aims at merging Description Logics, widely used in Knowledge Representation, and Many-Valued Logics, used to model vague and fuzzy concepts, to develop a logical formalism for the representation of knowledge in the presence of vagueness.
INFORMATION SCIENCES	065	D'ANTONA OTTAVIO	DIPARTIMENTO DI INFORMATICA E COMUNICAZIONE	Probability of non-classical events: logical foundations and applications.	Investigation of aspects of subjective probability à la De Finetti, where events are described by formulae of non-classical logics. Design and development of software simulating bookmaking interactions. Emphasis on coherence checks on betting odds.
INFORMATION SCIENCES	066	DAMIANI ERNESTO	DIPARTIMENTO DI TECNOLOGIE DELL'INFORMAZIONE (CREMA)	Information Technologies and Methodologies for Intelligent, Distributed and Cooperative Services	Design, composition and management of distributed intelligent adaptive service-oriented systems on virtual frameworks; compliance, assurance, and quality of service of sustainable business processes.
INFORMATION SCIENCES	067	CASTANO SILVANA	DIPARTIMENTO DI INFORMATICA E COMUNICAZIONE	Methods and techniques for exploratory, entity-driven search over the Webs	Goal of the research is the development of methods and techniques to build entity-centric collections of data from multiple webs, providing a smart organization for exploratory search according to prominence, proximity and other semantic relations.



INFORMATION SCIENCES	068	CASIRAGHI ELENA	DIPARTIMENTO DI SCIENZE DELL'INFORMAZIONE	Supervised learning techniques for multi-class and multi-label classification problems in Bioinformatics .	MultiClass and multiLabel classification problems in Bioinformatics require supervised learning techniques coping with high dimensional data, training sets whose cardinality is lower or comparable to data dimensionality, and highly unbalanced classes
MEDICINE	069	BERTAZZI PIETRO ALBERTO	DIPARTIMENTO DI MEDICINA DEL LAVORO - CLINICA DEL LAVORO "L.DEVOTO"	Epigenetic markers in in-vivo and in-vitro studies on occupational and environmental risks	This project will investigate the biological mechanisms through which environmental and occupational exposures might affect health; dna methylation and histone modifications represent the two most relevant markers in carcinogenesis processes.
MEDICINE	070	GIANELLI UMBERTO	DIPARTIMENTO DI MEDICINA, CHIRURGIA E ODONTOIATRIA	MicroRNAs profiles in primary myelofibrosis: implications in disease pathogenesis and prognosis	Primary myelofibrosis(PMF) is a clonal neoplasm characterized by increased CD34+precursors, deposition of collagen fibrosis and myeloid metaplasia. The research aims to investigate the microRNAs role in PMF onset, fibrosis deposition and evolution to acute myeloid leukemia.
MEDICINE	071	SCARPINI ELIO ANGELO	DIPARTIMENTO DI SCIENZE NEUROLOGICHE	Role of microRNA in multiple sclerosis: genetic and functional analysis	"The research program will be focused on: <ol style="list-style-type: none">1. Genetic analysis by direct sequencing and allelic discrimination2. Transcriptional analysis by Real Time PCR3. Circulating microRNAs detection in CSF and serum
MEDICINE	072	RATIGLIA ROBERTO	DIPARTIMENTO DI SCIENZE CHIRURGICHE SPECIALISTICHE	Analysis of the retinal abnormalities and specialized follow-up of patients affected by beta-thalassemia during possible iron-chelating therapy	Specialized evaluation of patients affected by beta-thalassemia, including functional and non-invasive diagnostic exams during follow-up visits, finalized to early diagnosis and therapy of retinal abnormalities secondary to the systemic pathology or to the iron-chelating therapy



MEDICINE	073	RECALCATI STEFANIA	DIPARTIMENTO DI MORFOLOGIA UMANA E SCIENZE BIOMEDICHE - CITTA' STUDI	Signals and cellular pathways involved in erythropoiesis-dependent regulation of hepcidin, the iron hormone	Suppression of hepcidin, key regulator of iron balance, is necessary to match iron supply to increased erythroid demand. Aim: to understand the molecular basis of erythropoietic dependent-hepcidin regulation, using an in vitro and in vivo approach.
MEDICINE	074	PENAGINI ROBERTO	DIPARTIMENTO DI SCIENZE MEDICHE	New insight into pathophysiology of oesophageal achalasia and of ineffective oesophageal motility with the use of high resolution manometry	To evaluate impairment of afferent and efferent neural pathways in oesophageal achalasia and in ineffective oesophageal motility and its impact on efficacy of treatment
MEDICINE	075	POMPILIO GIULIO	DIPARTIMENTO DI SCIENZE CARDIOVASCOLARI	"Epigenetic basis of diabetes cardiovascular metabolic memory: a patient-tailored multilayer analysis	Analysis of epigenetic mechanisms responsible for the metabolic memory in in-vivo and in-vitro models, aimed at the identification of potentially therapeutic molecular targets. Set-up of disease-specific patient-tailored cellular models.
MEDICINE	076	TARAMELLI DONATELLA	DIPARTIMENTO DI SANITA' PUBBLICA - MICROBIOLOGIA - VIROLOGIA	Control to elimination of malaria: innovative tools for new antimalarials active against sexual parasite stage.	Transmission blocking drugs are needed to eliminate malaria. The project aims at improving the methods of cultivation of P.falciparum gametocytes and to develop new M/HTS screening assays for gametocytocidal compounds using Luc-transgenic strains.
MEDICINE	077	ESPOSITO SUSANNA	DIPARTIMENTO DI SCIENZE MATERNO-INFANTILI	Genetic variants and susceptibility to invasive infections in neonates and children	To analyse possible correlations between specific genetic defects in innate immunity (such as toll-like receptors mutations), alterations in cytokine production and the risk of developing invasive infections in neonates and children.



MEDICINE	078	SPADA ANNAMARIA	DIPARTIMENTO DI SCIENZE MEDICHE	Application of genome-wide analysis techniques to identify new pathogenic mechanisms of idiopathic endocrine diseases.	To identify novel genes and molecular mechanisms involved in idiopathic endocrine diseases, genome wide association studies and copy number variation analysis and/or exome sequencing will be performed on a large series (>500) of premature ovarian failure and congenital hypothyroidism.
MEDICINE	079	SELM CARLO FRANCESCO	DIPARTIMENTO DI MEDICINA TRASLAZIONALE	Study of epigenetic and environmental factors in monozygotic twins discordant for autoimmune disease	Identification of environmental (risk factors, geoeidemiology) and epigenetic (DNA methylation, histone changes, microRNAs) factors in the susceptibility to autoimmune diseases through the study of biological samples from monozygotic twins.
MEDICINE	080	PEYVANDI FLORA	DIPARTIMENTO DI MEDICINA INTERNA	Characterization of anti-ADAMTS13 autoantibodies in patients with acquired thrombotic thrombocytopenic purpura (TTP)	In acquired TTP ADAMTS-13 function is impaired by anti-ADAMTS13 antibodies inhibiting its activity and/or accelerating its clearance from plasma. Aim of the project is to study the pathogenetic, diagnostic and prognostic role of these antibodies.
MEDICINE	081	PONTELLO MIRELLA MARIA	DIPARTIMENTO DI SANITA' PUBBLICA - MICROBIOLOGIA - VIROLOGIA	L.monocytogenes invasive infections in fragile population: epidemiological study of pregnancy- and immunodepression-related cases	Research fields: 1)epidemiology of pregnancy and non-pregnancy related invasive listeriosis (30 cases/year expected); 2)typing of L.monocytogenes isolates to cellular clones and epidemic cluster identification, virulence factors investigation.
MEDICINE	082	SFONDRINI LUCIA	DIPARTIMENTO DI MORFOLOGIA UMANA E SCIENZE BIOMEDICHE - CITTA' STUDI	Evaluation of FoxP3 expression in mammary tumor cells and of its role in immune response	Evaluation of the role of FoxP3 in mammary carcinoma subtypes ER+, HER2+, and triple negative to reveal a possible immunosuppressive activity, analyzing the cytokines produced in culture supernatants, in primary tumors and in wound healing fluids.



MEDICINE	083	IAPICHINO GAETANO	DIPARTIMENTO DI ANESTESIOLOGIA, TERAPIA INTENSIVA E SCIENZE DERMATOLOGICHE	Patophysiology and treatment strategies for lung ischemia-reperfusion injury	The research will focus on the metabolic adaptations and bioenergetic consequences of the process of ischemia-reperfusion in the lung, aiming to identify factors that allow a modulation of the response and a reduction of the injury.
MEDICINE	084	ZANETTI ALESSANDRO REMO	DIPARTIMENTO DI SANITA' PUBBLICA - MICROBIOLOGIA - VIROLOGIA	Surveillance and control of viral infections seriously impacting on Public Health	1) Human PapillomaVirus (HPV) infection in adolescent and young adults and sexually transmitted infections role in the natural history of HPV infection; 2) Long-term immunity of hepatitis B vaccination and need for booster"
MEDICINE	085	MERONI PIERLUIGI	DIPARTIMENTO DI MEDICINA INTERNA	Dysfunctional lipoproteins in SLE associated atherosclerosis	Accelerated atherosclerosis is associated with inflammation and dyslipidemia. The study will evaluate the ability of circulating lipoproteins to carry inflammatory proteins and their altered functionality in SLE patients.
MEDICINE	086	MARCONI ANNA MARIA	DIPARTIMENTO DI MEDICINA, CHIRURGIA E ODONTOIATRIA	Autophagy in human placenta	Autophagy is essential for cytoprotection during stress. Inadequate placental function results in abnormal pregnancy outcome. We will study autophagy in the placenta from normal and complicated pregnancies to investigate its role in unfavourable pregnancy outcome.
MEDICINE	087	MAIER JEANETTE ANNE MARIE	DIPARTIMENTO DI SCIENZE CLINICHE "LUIGI SACCO"	"Amniotic fluid-derived mesenchymal stem cells as a tool for bone repair: culture on scaffolds and interactions with the endothelium	Amniotic fluid-derived stem cells are an alternative to allografts or autologous bone grafting in massive bone loss. Optimization of growth on scaffolds and interactions with endothelial cells must be studied to develop a model for cell therapy.
MEDICINE	088	MALESCI ALBERTO	DIPARTIMENTO DI MEDICINA TRASLAZIONALE	The role of the urokinase-type plasminogen activator receptor (uPAR) in the pathogenesis of inflammatory bowel disease (IBD).	The urokinase receptor (uPAR) is an essential part of the plasminogen activation (PA) system and plays a crucial role in tissue remodelling. The research activity will focus on the analysis of the PA system elements in the the pathogenesis of IBD.



MEDICINE	089	MELCANGI COSIMO	DIPARTIMENTO DI ENDOCRINOLOGIA, FISIOPATOLOGIA E BIOLOGIA APPLICATA	Protective effects of neuroactive steroids in experimental autoimmune encephalomyelitis model	Evaluation of metabolism and protective effects of neuroactive steroids in experimental autoimmune encephalomyelitis model in order to identify new therapeutic strategies based on these molecules for multiple sclerosis.
MEDICINE	090	MOJA EGIDIO	DIPARTIMENTO DI MEDICINA, CHIRURGIA E ODONTOIATRIA	Difficult conversations in medicine	Study of the verbal doctor-patient communication in the case of difficult medical conversations, collected by videorecording and analyzed qualitatively and/or quantitatively. The study should pay a particular attention to the clinical implications of its results.
MEDICINE	091	LAVEZZI ANNA MARIA	DIPARTIMENTO DI SCIENZE CHIRURGICHE, RICOSTRUTTIVE E DIAGNOSTICHE	Immunohistochemical study of the autonomic nervous system functional alterations in the unexpected fetal and infant death	The aim of the project is the identification by immunohistochemical methods applied to histological sections of alterations of specific neurotransmitters and functional markers in the sudden unexplained intrauterine and infant death.
MEDICINE	092	LA VECCHIA CARLO	DIPARTIMENTO DI MEDICINA DEL LAVORO - CLINICA DEL LAVORO. DEVOTO	Risk factors for cancer: lifestyle and dietary habits, environmental factors and family history.	The scope of this project is to collect original data on the possible role of dietary and nutritional aspects, physical activity, anthropometric measures, personal medical and family history, genetic and environmental factors on the cancer risk.
MEDICINE	093	GERVASINI CRISTINA COSTANZA GIOVANNA	DIPARTIMENTO DI MEDICINA, CHIRURGIA E ODONTOIATRIA	Identification of novel genes responsible for the genetically and clinically heterogeneous Rubinstein-Taybi syndrome	The research activity focus on the identification, by next-generation sequencing, of novel responsible genes of Rubinstein-Taybi syndrome, with attention on cognitive defects and tumors risk.



MEDICINE	094	GATTINONI LUCIANO	DIPARTIMENTO DI ANESTESIOLOGIA, TERAPIA INTENSIVA E SCIENZE DERMATOLOGICHE	Efficacy of albumin administration in patients with severe sepsis or septic shock	Evaluation of the anti-inflammatory properties as well as properties of modulation of multiple organ failures of albumin during severe sepsis or septic shock, aimed at individuating therapeutic and clinically effective targets for its administration
MEDICINE	095	GRANDI MARCO	DIPARTIMENTO DI MORFOLOGIA UMANA E SCIENZE BIOMEDICHE - CITTA' STUDI	Biothanatologic study on consecutive ultrastructural cellular variations	Optical and electron-transmission microscopical study on ultrastructural cellular variations for thanatocronological estimations in medico-legal practice
MEDICINE	096	GALLI MASSIMO	DIPARTIMENTO DI SCIENZE CLINICHE "LUIGI SACCO"	Application of advanced phylogenetic analysis to the study of intra and inter-host spatio-temporal dynamics of highly variable viruses	Advanced phylogenetic methods allowing the study of virus evolution from a phylodynamic or phylogeographic point of view will be used to reconstruct the dynamics of highly variable hepatitis viruses at the epidemiological and within-host level.
MEDICINE	097	FARRONATO GIAMPIETRO	DIPARTIMENTO DI SCIENZE CHIRURGICHE, RICOSTRUTTIVE E DIAGNOSTICHE	Computerized 3D Cephalometric analysis on CONE BEAM COMPUTED TOMOGRAPHY (CBCT)	FROM THE DATA BASE OF THE Orthodontic department which include more than 1000 cbct, cases will be selected a three dimensional cephalometric analysis. the difference between 3d e 2d values will be evaluated to obtain an optimal diagnosis.
MEDICINE	098	FAIONI ELENA MARIA	DIPARTIMENTO DI MEDICINA, CHIRURGIA E ODONTOIATRIA	The role of the endothelial protein C receptor (EPCR) in cancer and cancer cell progression.	Clotting plays a major role in cancer favoring metastasis, but breast cancer stem cells express the coagulation inhibitor EPCR and tumors expressing it have a poorer prognosis. This paradox and the prognostic role of EPCR in cancer need clarification



MEDICINE	099	D'ARMINIO MONFORTE ANTONELLA	DIPARTIMENTO DI MEDICINA, CHIRURGIA E ODONTOIATRIA	Role of immune activation, inflammation and immunosenescence in the pathogenesis of non-infectious comorbidities in HIV-infected patients	Despite success of therapy, HIV+ patients suffer from cardiovascular disease and osteoporosis, suggesting premature aging. The causal relationship between inflammation, immunosenescence and atherosclerosis and osteoporosis is investigated.
MEDICINE	100	CATTANEO CRISTINA	DIPARTIMENTO DI MORFOLOGIA UMANA E SCIENZE BIOMEDICHE - CITTA' STUDI	Analysis of odontological and anthropological parameters useful for the identification of human remains and their use in the RISC ministerial form	"Study of new methods, 3D included, for constructing the biological profile (age, ancestry, personal id) of human remains of forensic interest; their applicability to the RISC form (national database for missing persons and unidentified human remains)"
MEDICINE	101	CETIN IRENE	DIPARTIMENTO DI SCIENZE CLINICHE "LUIGI SACCO"	Mitochondrial activity in mothers, placentas and fetuses of normal and pathological pregnancies and in placental cell lines	The role of mitochondria in placental insufficiency pathologies. The study of mitochondrial expression, functionality and regulation in maternal, placental and fetal tissues and in placental cellular lines at different oxygen conditions
MEDICINE	102	CUSI DANIELE MARIA	DIPARTIMENTO DI MEDICINA, CHIRURGIA E ODONTOIATRIA	Identification of genetic profiles for the susceptibility to cardiovascular complex disease and to drug response.	The nominee will perform genome-wide association studies to identify single nucleotide polymorphisms (SNPs) and copy number variants (CNVs) to build genetic profiles associated to cardiovascular diseases and to specific drug response.
MEDICINE	103	COMI GIACOMO PIETRO	DIPARTIMENTO DI SCIENZE NEUROLOGICHE	Development of novel cellular and/or molecular approaches for neurodegenerative and neuromuscular diseases.	The project has to evaluate the prospects of applying stem cell lines as a source for transplantation (cell therapy) and/or genetic approaches to treat neurodegenerative and neuromuscular disorders.



MEDICINE	104	CAPPELLINI MARIA DOMENICA	DIPARTIMENTO DI MEDICINA INTERNA	Iron metabolism and heme biosynthesis interactions in physiological and pathological conditions.	The aim of this study is to understand the mechanisms underlying the mitochondrial iron availability for heme synthesis and in particular to identify the regulators that prevent or cause its accumulation. Sideroblastic anemia and erythropoietic protoporphyria patients are an ideal human model for these studies.
MEDICINE	105	COLOMBO MASSIMO	DIPARTIMENTO DI SCIENZE MEDICHE	Genetic predictors of anemia in patients with chronic hepatitis C receiving PegInterferon and Ribavirin combination therapy	To investigate the association between single nucleotide genetic polymorphisms analyzed with a real-time PCR assay and development of anemia during antiviral therapy with PegInterferon and Ribavirin in chronic hepatitis C patients.
MEDICINE	106	CICARDI MARCO	DIPARTIMENTO DI SCIENZE CLINICHE "LUIGI SACCO"	Molecular mechanisms leading to angioedema symptoms	The project is based on the use of molecular biology techniques, as DNA amplification and sequencing, quantitative gene expression, identification of microRNA, finalized to the study of samples obtained from a large case list of patients with different disease conditions
AGRICULTURAL SCIENCE	107	CORTESI PAOLO	DIPARTIMENTO DI PROTEZIONE DEI SISTEMI AGROALIMENTARE E URBANO E VALORIZZAZIONE DELLE BIODIVERSITA'	Biological control of plant diseases	Development of Biological Control Agent (BAC) useful to manage plant disease epidemics is of major importance within the frame of the Dir.2009/128/CEE. The objective of the project is to search for and to develop BAC to manage plant disease epidemics
AGRICULTURAL SCIENCE	108	IRITI MARCELLO	DIPARTIMENTO DI PRODUZIONE VEGETALE	Effects of elicitors of plant defences on the melatonin and polyphenol content and antioxidant power of different grapes and wines	Elicitors of plant defences are able to enhance the biosynthesis of bioactive secondary metabolites. The extracts from treated grapes and vines will be assayed in order to evaluate their melatonin and polyphenol levels and their antiradical power



AGRICULTURAL SCIENCE	109	SARACCHI MARCO	DIPARTIMENTO DI PROTEZIONE DEI SISTEMI AGROALIMENTARE E URBANO E VALORIZZAZIONE DELLE BIODIVERSITA'	Biology, epidemiology and control of emerging fungal plant pathogens inducing cankers on trees	Among the emerging diseases causing bark cankers on trees, the research proposal will focus on biology and epidemiology of a fungal pathogen with the aim to develop management strategy, preferably biological control
AGRICULTURAL SCIENCE	110	ROLLINI MANUELA SILVIA	DIPARTIMENTO DI SCIENZE E TECNOLOGIE ALIMENTARI E MICROBIOLOGICHE	Zymomonas mobilis: biotechnological applications of the fermentation ability as dough leavener in alternative to baker's yeast (<i>S.cerevisiae</i>)	The research will study the applicability of <i>Z. mobilis</i> as alternative microorganism to <i>S. cerevisiae</i> , through cell growth optimization and biomass storage up to pilot plant scale, and determination of its leavening performance either in model systems and in complex doughs.
AGRICULTURAL SCIENCE	111	ROSSINI LAURA	DIPARTIMENTO DI PRODUZIONE VEGETALE	Interactions between developmental plasticity and adaptation to abiotic stress in cereals	Manipulation of plant architecture led to increased cereal yields. Genetic factors and hormones shapes plant morphology. This project will focus on the role of these regulators in developmental plasticity and adaptation to abiotic stress.
AGRICULTURAL SCIENCE	112	PESSINA DOMENICO	DIPARTIMENTO DI INGEGNERIA AGRARIA	Innovative solutions for the operators safety and wellness and the environmental protection related to the agricultural machinery mechanical risks	Following the general and dedicated Standards, innovative solutions of prevention and protection to reduce the frequency and the severity of injuries occurred when using agricultural machinery should be pointed out
AGRICULTURAL SCIENCE	113	PAGLIARINI ANTONELLA	DIPARTIMENTO DI SCIENZE E TECNOLOGIE ALIMENTARI E MICROBIOLOGICHE	Development of a sensory education model for the study of children's preferences and behaviours to prevent obesity at primary school	Setting up of a program addressed to sensory education in order to prevent obesity in children measuring the consumption of fruits and vegetables by means of sensory, affective and mnemonic variables.



AGRICULTURAL SCIENCE	114	MANNINO SAVERIO	DIPARTIMENTO DI SCIENZE E TECNOLOGIE ALIMENTARI E MICROBIOLOGICHE	Bio-nanotechnologies in the food chain	The aim of the research is to develop of nanofiber biomembrane by electrospinning for the preparation of edible structure at high sensorial impact, of functional packaging, and of nanosensors for the rapid detection of the quality and safety of food.
AGRICULTURAL SCIENCE	115	MIGNANI ILARIA	DIPARTIMENTO DI PRODUZIONE VEGETALE	Quality traits in berries: improvement by biochemical and molecular biological techniques	Use of molecular biological and biochemical techniques in order to develop berry fruit cultivars with high quality traits (nutritional quality, storability, stress tolerance, pests resistance, high productivity, and climatic adaptability)
AGRICULTURAL SCIENCE	116	OLPER ALESSANDRO	DIPARTIMENTO DI ECONOMIA E POLITICA AGRARIA AGRO-ALIMENTARE E AMBIENTALE	Analysis of the Common agricultural policy effects on agricultural labor and farm productivity using parametric and semi-parametric methods.	The aim of the research project is to analyze the effects of the CAP on the agricultural labor market and farm-level total factor productivity. Particular emphasis will be given to modern estimation methods, like propensity-score matching.
AGRICULTURAL SCIENCE	117	FOSCHINO ROBERTO CARMINE	DIPARTIMENTO DI SCIENZE E TECNOLOGIE ALIMENTARI E MICROBIOLOGICHE	Analytical strategies and improvement of microbiological quality and safety of wine.	Wine production is a complex process in which microorganisms play a key role in obtaining a safe and valuable product. The development and the application of molecular techniques are essential for the management and the innovation of this ancient biotransformation.
AGRICULTURAL SCIENCE	118	FRISIO DARIO GIANFRANCO	DIPARTIMENTO DI ECONOMIA E POLITICA AGRARIA AGRO-ALIMENTARE E AMBIENTALE	Competitive frameworks of agriculture innovation in the gene revolution's era.	Evaluation of the gene revolution's effects on agriculture innovation pathways in plant breeding and plant protection by the use of patent data statistics and corporate strategies analysis.



AGRICULTURAL SCIENCE	119	FACCHI ARIANNA	DIPARTIMENTO DI INGEGNERIA AGRARIA	Monitoring, analysis and modelling of water fluxes in maize agro-ecosystems	Monitoring and analysis of water and energy fluxes in maize parcels of the Lombardia plain, aimed at testing/developing operational models for the estimation of evapotranspiration and irrigation requirements suitable for that territorial context.
AGRICULTURAL SCIENCE	120	DE NONI IVANO	DIPARTIMENTO DI SCIENZE E TECNOLOGIE ALIMENTARI E MICROBIOLOGICHE	Formation and fate of compounds with biological or sensory activities in relation to food composition and to technological and digestive processes	To evaluate the factors affecting: <ul style="list-style-type: none">- occurrence and levels of bioactive compounds and AGEs following processing or gastrointestinal digestion of dairy and cereal products- activity of thiol compounds on the formation and protection of flavours and off-flavours in wine
AGRICULTURAL SCIENCE	121	ADANI FABRIZIO	DIPARTIMENTO DI PRODUZIONE VEGETALE	Chemical-physical and enzymatic pretreatments of biomasses for second generation bio-hydrogen production by anaerobic fermentation.	The aim of the research consists in studying plant-biomass pretreatment processes and the modifications of ligno-cellulosic structures, which can allow second generation bio-hydrogen production optimization.
AGRICULTURAL SCIENCE	122	ACUTIS MARCO	DIPARTIMENTO DI PRODUZIONE VEGETALE	Nitrogen in agriculture: effects on cropping system and environmental impact	Nitrogen (N) is a key element in cropping systems, but it has environmental impact when lost via water and gas losses. It is therefore required to optimize N management at cropping system, farm and territorial scale under current and future climate
AGRICULTURAL SCIENCE	123	CASIRAGHI ERNESTINA	DIPARTIMENTO DI SCIENZE E TECNOLOGIE ALIMENTARI E MICROBIOLOGICHE	Food processing control and optimization and/or new food design through different instrumental methods.	Use of spectroscopic, rheological and/or ultrastructural methods, combined with advanced statistical procedures, for food processing control and optimization and/or for new food design.



VETERINARY SCIENCES	124	BAGNATO ALESSANDRO	DIPARTIMENTO DI SCIENZE E TECNOLOGIE VETERINARIE PER LA SICUREZZA ALIMENTARE	Genome wide association studies using dense SNP chips and genome sequences for productive and functional traits in cattle.	Identification of SNP and CNV affecting phenotypic variation of complex productive and functional traits in cattle, using whole genome re-sequencing, high density SNP chips, imputation genotyping techniques and linkage analysis.
VETERINARY SCIENCES	125	PALESTRINI CLARA	DIPARTIMENTO DI SCIENZE ANIMALI	Dog's management and welfare in the domestic environment, focus on development of behavioural diseases such as anxiety related disorders	Dog's welfare analysis and evaluation in the domestic environment. In particular we will focus on the relationship between dog's welfare and its management as predisposing factor on the development of anxiety related disorders
VETERINARY SCIENCES	126	ROSI FABIA	DIPARTIMENTO DI SCIENZE ANIMALI	Study and improvement in the functional properties of animal foods	<ul style="list-style-type: none">• presence and concentration of bioactive and functional molecules• receptors in gastrointestinal mucosa and effects in animal models• strategies to modulate their levels in animal foods.
VETERINARY SCIENCES	127	ZANI DAVIDE DANILO	DIPARTIMENTO DI SCIENZE CLINICHE VETERINARIE	Low field (0,18 Tesla) arthro-RM for evaluation of equine metacarpophalangeal joint cartilage defects	Evaluation of cartilage defects of equine metacarpophalangeal joint performing arthro-RM with a low field magnet (0,18 Tesla) using intra-articular air injection in association to arthrodiastasis.
VETERINARY SCIENCES	128	TEDESCO DORIANA	DIPARTIMENTO DI SCIENZE E TECNOLOGIE VETERINARIE PER LA SICUREZZA ALIMENTARE	Valorisation of active ingredients in wastes from industrial processing plants as feed additives.	Re-use of vegetable wastes with bioactive components from food and phytopharmaceutical industries as feed additives. Evaluation of antioxidant activities of wastes as feed additives in dairy cow and on milk oxidative stability and dairy products



VETERINARY SCIENCES	129	VIGO DANIELE	DIPARTIMENTO DI SCIENZE E TECNOLOGIE VETERINARIE PER LA SICUREZZA ALIMENTARE	Reproductive and productive physiology of dairy cows with high "ancient and autochthonous biodiversity" raised in Northern Italy to produce milk and meat	The study of the physiology of autochthonous dairy cows in Northern Italy meeting "FAO Report 2050" indications, oriented to milk and meat production from traditional and perennial forage with low energy and water demand.
VETERINARY SCIENCES	130	MANFREDI MARIA TERESA	DIPARTIMENTO DI PATOLOGIA ANIMALE, IGIENE E SANITA' PUBBLICA VETERINARIA	Evaluation of methods for diagnosis of cystic echinococcosis in ruminants	Evaluation of methods for the diagnosis of cystic echinococcosis in domestic ruminants with particular reference to enzyme-linked immunoelectrotransfer blot (EITB) in epidemiological studies aimed at monitoring the disease in hypoendemic areas
VETERINARY SCIENCES	131	GRIECO VALERIA	DIPARTIMENTO DI PATOLOGIA ANIMALE, IGIENE E SANITA' PUBBLICA VETERINARIA	Animal models for the study of human testicular tumors	In human beings increased frequency of interstitial tumors is observed. Environmental endocrine disruptors substances are evoked among the possible causes. To study etiopathogenetical factors the identification of animal models is fundamental
VETERINARY SCIENCES	132	GANDOLFI FULVIO	DIPARTIMENTO DI SCIENZE ANIMALI	Biological and molecular mechanisms driving cell reprogramming in domestic animals.	Identification and assessment of different experimental strategies that allow porcine differentiated cell reprogramming but avoid the use of any transgenic modification.
VETERINARY SCIENCES	133	CREMONESI FAUSTO	DIPARTIMENTO DI SCIENZE CLINICHE VETERINARIE	Immunomodulatory effects of equine extraembryonic stem cells: from molecular mechanism characterization to in vivo application	Presumptive mesenchymal stem cells will be isolated from Umbilical cord Wharton jelly and amniotic membrane from foal at parturition. Experiments will be performed to characterize the pluripotent status of these cells with the aid of molecular biology techniques to evaluate the immunomodulatory properties with the aim to use in regenerative medicine by allogeneic transplantation.



VETERINARY SCIENCES	134	CECILIANI FABRIZIO	DIPARTIMENTO DI PATOLOGIA ANIMALE, IGIENE E SANITA' PUBBLICA VETERINARIA	Fisiopathology of adipokine expression in ruminant adipose tissue: a molecular approach.	The investigation will focus on several aspects of adipokine expression, including their involvement in innate immunity and in diseases such as metabolic syndrome.
VETERINARY SCIENCES	135	BERSANI CARLA	DIPARTIMENTO DI SCIENZE E TECNOLOGIE VETERINARIE PER LA SICUREZZA ALIMENTARE	Innovative methods for the implementation of animal food hygiene	The research activity consists in the evaluation of innovative methods (such as decontamination or the use of bioprotective agents) for the improvement of animal food hygiene and durability.
VETERINARY SCIENCES	136	BRONZO VALERIO	DIPARTIMENTO DI PATOLOGIA ANIMALE, IGIENE E SANITA' PUBBLICA VETERINARIA	Epidemiology and pathogenesis of Staphylococcus aureus infections in domestic ruminants	Epidemiological study of pathogenic mechanisms of Staph. aureus infections to identify risk factors in the farm and implement their use as a complementary instrument to control health care programs.
VETERINARY SCIENCES	137	BRAMBILLA PAOLA GIUSEPPINA	DIPARTIMENTO DI SCIENZE CLINICHE VETERINARIE	Ventricle function in normal dogs and in dogs with pulmonic stenosis before and after treatment with pulmonary balloon valvuloplasty	Quantification of ventricle function with new deformation myocardial echocardiographic parameters (strain, strain rate and torsion 2D based) in normal dogs and with pulmonic stenosis before and after treatment with pulmonary balloon valvuloplasty
VETERINARY SCIENCES	138	BANDI CLAUDIO	DIPARTIMENTO DI PATOLOGIA ANIMALE, IGIENE E SANITA' PUBBLICA VETERINARIA	Inhibition of multidrug resistance efflux pumps for the control of tick infestations	P-glycoproteins (P-gps) are multidrug efflux pumps. Molecules used for the control of ticks are target of these pumps. This project will test P-gps inhibitors, with the aim of reducing drug dosage and/or preventing the evolution of drug resistance.
VETERINARY SCIENCES	139	BONTEMPO VALENTINO	DIPARTIMENTO DI SCIENZE E TECNOLOGIE VETERINARIE PER LA SICUREZZA ALIMENTARE	Nutritional regulation on gene expression in gut health	Evaluation of receptors as targets of dietary components which can play a key role in the protection of the intestinal mucosa against bacterial overgrowth and the alteration of the intestinal barrier in young pigs.



PHARMACEUTICAL AND PHARMACOLOGICAL SCIENCES	140	BRINI ANNA TERESA	DIPARTIMENTO DI FARMACOLOGIA, CHEMIOTERAPIA E TOSSICOLOGIA MEDICA	Positive/negative factors able to affect cellular precursors to differentiate towards osteoblast/chondrocyte-like cells in regenerative medicine	The use of progenitor cells for human musculoskeletal tissue regeneration: requirement of growth factors, molecules, drugs and physical stimuli (3D scaffold, dynamic culture) to improve and understand cellular differentiation for clinical applications
PHARMACEUTICAL AND PHARMACOLOGICAL SCIENCES	141	ARNOLDI ANNA	DIPARTIMENTO DI ENDOCRINOLOGIA, FISIOPATOLOGIA E BIOLOGIA APPLICATA	Nutraceuticals and functional foods: role of dietary plant proteins and bioactive peptides for the prevention of cardiovascular disease	The role of dietary plant proteins and peptides in the reduction of the main risk factors of cardiovascular disease (hypertension, hypercholesterolemia) will be investigated by studying the modulation of genes/enzymes involved in lipid metabolism
PHARMACEUTICAL AND PHARMACOLOGICAL SCIENCES	142	NISOLI ENZO	DIPARTIMENTO DI FARMACOLOGIA, CHEMIOTERAPIA E TOSSICOLOGIA MEDICA	Drug therapy of obesity and metabolic syndrome	Calorie restriction extends lifespan in mammals with reduction of age-related disorders, including obesity and metabolic syndrome. Aim of the research is to study the molecular mechanisms involved in the calorie restriction.
PHARMACEUTICAL AND PHARMACOLOGICAL SCIENCES	143	ROMEO SERGIO	DIPARTIMENTO DI SCIENZE FARMACEUTICHE "PIETRO PRATESI"	Design, synthesis and study of the mechanism of action of new non-quinolinic antimalarial compounds.	"Design and synthesis of new antimalarial compounds; study of new intraerythrocytic targets."
PHARMACEUTICAL AND PHARMACOLOGICAL SCIENCES	144	POPOLI MAURIZIO	DIPARTIMENTO DI SCIENZE FARMACOLOGICHE	Genome-wide epigenetic analysis in transgenic mice carrying the human polymorphism Val66Met of BDNF gene	Study of epigenetic changes in transgenic mice carrying the human polymorphism Val66Met of BDNF gene induced by the presence of polymorphism and by chronic psychosocial stress. Chip-Seq analysis; ChIP-qPCR analysis; bioinformatic analysis of data.
PHARMACEUTICAL AND PHARMACOLOGICAL SCIENCES	145	VIVIANI BARBARA	DIPARTIMENTO DI SCIENZE FARMACOLOGICHE	Early life neuroinflammation: role for a later onset of cognitive deficits and implications for therapeutic intervention	Evaluation of the biochemical alterations induced in neurons and glia by inflammation in prepubertal rats and through the use of an in vitro approach. Evaluation of the role of proinflammatory cytokines and the glutamatergic system.



PHARMACEUTICAL AND PHARMACOLOGICAL SCIENCES	146	MATTEOLI MICHELA	DIPARTIMENTO DI FARMACOLOGIA, CHEMIOTERAPIA E TOSSICOLOGIA MEDICA	Molecular determinants of neuronal excitability: role of SNAP- 25 in epilepsy and psychiatric disorders	Aim of the present proposal is to define the mechanisms by which variations in the expression of the protein SNAP-25, described to occur in psychiatric diseases, alter neuronal excitability leading to an altered electroencephalographic profile
PHARMACEUTICAL AND PHARMACOLOGICAL SCIENCES	147	MONTANARI LUISA	DIPARTIMENTO DI SCIENZE FARMACEUTICHE "PIETRO PRATESI"	Design of new biomaterials constituted by regenerated keratin suitable for the preparation of parenteral drug-delivery systems	The project aims to the regeneration, the chemical and/or technological modification of keratins, also in order to obtain stimuli- responsive polymeric biomaterials intended for the delivery of active ingredients by parenteral route.
PHARMACEUTICAL AND PHARMACOLOGICAL SCIENCES	148	MAGGI ADRIANA CATERINA	DIPARTIMENTO DI SCIENZE FARMACOLOGICHE	Importance of liver estrogen receptor activity in the regulation of energy metabolism.	Genome-wide analysis and chip-seq technologies will be applied to the study of liver transcriptome to determine ER involvement in metabolic alterations associated with different states of fertility in mammalian females.
PHARMACEUTICAL AND PHARMACOLOGICAL SCIENCES	149	ALDINI GIANCARLO	DIPARTIMENTO DI SCIENZE FARMACEUTICHE "PIETRO PRATESI"	oxidatively modified proteins as biomarker of inflammatory based diseases and as drug target	High resolution mass spectrometric approach for the characterization of oxidatively-modified proteins as early biomarker of inflammatory based diseases and as molecular targets for development of new bioactive compounds
PHARMACEUTICAL AND PHARMACOLOGICAL SCIENCES	150	GORIO ALFREDO	DIPARTIMENTO DI MEDICINA, CHIRURGIA E ODONTOIATRIA	Stem Cells, Cellular Therapy and Regenerative Medicine: Strategies for Treatment of Acute Neurodegenerative Disorders	Cell transplantation and regeneration of damaged tissues may provide hope for individuals affected by acute injuries. None of embryonic or adult stem cells have been fully satisfactory, since they must survive in such an unfavourable environment
PHARMACEUTICAL AND PHARMACOLOGICAL SCIENCES	151	DE MICHELI CARLO	DIPARTIMENTO DI SCIENZE FARMACEUTICHE "PIETRO PRATESI"	Innovative approaches to the treatment of African Trypanosomiasis	The present research process has to be devoted to the design and the accomplishment of the synthesis of enzyme inhibitors involved in biochemical pathways essential to the parasite survival and characterized by a quite high selectivity in respect to mammalian cells.



PHARMACEUTICAL AND PHARMACOLOGICAL SCIENCES	152	CATTANEO ELENA	DIPARTIMENTO DI SCIENZE FARMACOLOGICHE	Strategies to rescue cellular and molecular abnormalities in Huntington's Disease	Development of strategies to normalize transcriptional abnormalities and subsequent cell loss in animal models of HD. In particular, protocols for the neuronal differentiation of stem cells and RNAi based strategies will be utilized.
PHARMACEUTICAL AND PHARMACOLOGICAL SCIENCES	153	DI GIULIO ANNA MARIA	DIPARTIMENTO DI MEDICINA, CHIRURGIA E ODONTOIATRIA	Molecular, cellular, and pharmacological study of a rare disease TSC and its complications	Lesions to TSC genes cause the lack of tuberlin, which alters cerebral development and the fate of affected smooth muscle cells. Mental retardation and epilepsy accompany the formation of abdominal masses and lung destruction in female patients
LAW	154	BILANCIA PAOLA	DIPARTIMENTO GIURIDICO-POLITICO	JUDGE'S Interpretation activity in the current multilevel system of law	THE RESEARCH MEANS TO ANALIZE Problems concerning judge's hermeneutic activity. in the current system judges must direct the interpretation of a national rule not only towards laws of the european union and the International treaties, but also towards the constitution.
LAW	155	TENELLA SILLANI CHIARA	DIPARTIMENTO DI DIRITTO PRIVATO E STORIA DEL DIRITTO	Contractual autonomy and contracts of financial guaranty	The powers of will in terms of financial security in the light of the recent decree 170/2004, implementing directive 2002/47/CE, that introduces a uniform set of rules to ensure the free movement of capital.
LAW	156	NASCIMBENE BRUNO	DIPARTIMENTO DI DIRITTO PUBBLICO, PROCESSUALE CIVILE , INTERNAZIONALE ED EUROPEO	The protection of the right of defence in the context of the EU accession to the ECHR	The protection of the right of defense in its various manifestations (e.g. access to justice, protection of legal entities, in particular in antitrust proceedings) in the light of the relationship between the Courts after the EU accession to the ECHR
LAW	157	TREVES TULLIO	DIPARTIMENTO DI DIRITTO PUBBLICO, PROCESSUALE CIVILE , INTERNAZIONALE ED EUROPEO	Amici curiae and other forms of individual participation before international tribunals and arbitrations	The project aims at analyzing the involvement in international proceedings before international jurisdictions of those subjects who, while not parties, are in some regards concerned; special attention will be given to the role of NGOs as amici curiae



LAW	158	VILLA GIANROBERTO	DIPARTIMENTO DI DIRITTO PRIVATO E STORIA DEL DIRITTO	Content and performance of contract in the independent authorities regulation.	Analysis of the Authorities' interventions as regards both content of contract terms and the definition of performance quality standards and consequences concerning liability for breach of contract.
LAW	159	MANCINI LETIZIA	"DIPARTIMENTO DI SCIENZE GIURIDICHE ECCLESIASTICISTICHE, FILOSOFICO-SOCIOLOGICHE E PENALISTICHE "CESARE BECCARIA"	Fight for rights or conflict of civilization? Social and juridical aspects of Mediterranean protests	The project develops from an analysis of Mediterranean protests, the choice and analysis of an empirical case study using the theoretical framework of Sociology of Fundamental Rights.
LAW	160	LANG ALESSANDRA	DIPARTIMENTO DI STUDI INTERNAZIONALI	Free movement of persons in the European Court of Justice's case-law	According to the ECJ, Directive 2004/38 does not regulate all the cases in which the Treaty grants a right to free movement. Some provisions of the directive seem not in line with the previous case-law.
LAW	161	GITTI GREGORIO	DIPARTIMENTO DI DIRITTO PRIVATO E STORIA DEL DIRITTO	Business contracts	Business contracts, including loan agreements, stock exchange and investment agreements, corporate-related agreements (such as shareholders' agreements, share and purchase agreements and contracts with the independent authorities and the State).
LAW	162	GRECO GUIDO	DIPARTIMENTO DI DIRITTO PUBBLICO, PROCESSUALE CIVILE, INTERNAZIONALE ED EUROPEO	Administrative Justice System and European Law	The aim of the research is the study of the relationship between European Law and the Italian Administrative Justice System
LAW	163	GHIDINI GUSTAVO	DIPARTIMENTO DI DIRITTO PRIVATO E STORIA DEL DIRITTO	New technologies and the principle of territoriality in patent law	With the advance of the telecommunication technology it become possible to distribute the use of patented processes and systems in different jurisdictions. The research will analyse the implications of the principle of territoriality in patent law in the light of these new technological developments.



LAW	164	FERRARI SILVIO	"DIPARTIMENTO DI SCIENZE GIURIDICHE ECCLESIASTICISTICHE, FILOSOFICO-SOCIOLOGICHE E PENALISTICHE "CESARE BECCARIA"	Dispute resolution procedures in the religious legal systems and their influence on transitional justice.	The research should analyse and compare conflict resolution mechanisms in Islamic, Jewish and Canon law and evaluate whether and how this mechanism influence transitional justice.
LAW	165	FACCHI ALESSANDRA	DIPARTIMENTO GIURIDICO-POLITICO	Body Rights. Self-determination and universalism of rights	The research focus will be on body rights and, in particular, on their theoretical foundations, on their implications as regards both civil rights and social rights, and on their universalizability.
LAW	166	DE NOVA GIORGIO	DIPARTIMENTO DI DIRITTO PRIVATO E STORIA DEL DIRITTO	Invalidity of the contract due to conflict with general clauses and material rules	when reviewing alien contracts,drafted pursuant to a Common Law system but with Italian law applicability,verify if the material rules,which forbid a result independently from any reference to the type of contract,may be an effective instruments
LAW	167	D'AMICO MARIA ELISA	DIPARTIMENTO DI DIRITTO PUBBLICO, PROCESSUALE CIVILE , INTERNAZIONALE ED EUROPEO	Science and law: limits to the margin of appreciation of the legislator	An analysis of the relation between science and law, with specific regard to the limits met by the legislator when dealing with issues where progressing science knowledge is highly relevant
LAW	168	DELFINI FRANCESCO	DIPARTIMENTO DI DIRITTO PRIVATO E STORIA DEL DIRITTO	Persons entitled to reserved part of the estate of the deceased: the Civil Code legal system and the developments of the law of succession.	Law of succession: petitions in case the due share of a rightful heir has been harmed by gifts or testament disposed by the deceased. A particular discussion of the new art. 563 Civil Code and other developments of the law.
LAW	169	CASTAGNOLA ANGELO	DIPARTIMENTO DI DIRITTO PUBBLICO, PROCESSUALE CIVILE , INTERNAZIONALE ED EUROPEO	The succession of insolvency proceedings after the reform of the Italian Insolvency Law	Material and formal aspects of cases of succession and effects on the avoidance provisions' relevant time, effectiveness of transactions entered into in the course of the insolvency proceeding prior to the winding-up, pre-preferential debts, creditors' interests and set-off.



LAW	170	BASILE FABIO	"DIPARTIMENTO DI SCIENZE GIURIDICHE ECCLESIASTICISTICHE, FILOSOFICO-SOCIOLOGICHE E PENALISTICHE "CESARE BECCARIA"	Ignorance of criminal regulation and its relevance in a comparative overview	The present research should offer a critical comparative contribution to the doctrinal and jurisprudential debate concerning Article 5 of the Criminal Law Code, between guilty principle and general-preventional needs
LAW	171	BOSCHIERO NERINA	DIPARTIMENTO DI DIRITTO PUBBLICO, PROCESSUALE CIVILE , INTERNAZIONALE ED EUROPEO	Current Trends of Chinese Law towards Non-Trade Concerns from the Perspective of International Law and WTO Law	International trade may undermine many non-trade concerns (environment, social rights...). It is important to evaluate China's behaviour to understand which direction the world is being driven by China
HUMANITIES (ANCIENT HISTORY, PHILOLOGY, LETTERS, ART HISTORY)	172	BONOMI ILARIA	DIPARTIMENTO DI FILOLOGIA MODERNA	Italian language of opera texts in connection with musical tone	The research project aims at exploring and analysing the language of Italian opera texts in connection with musical tone.
HUMANITIES (ANCIENT HISTORY, PHILOLOGY, LETTERS, ART HISTORY)	173	PIVA PAOLO	DIPARTIMENTO DI STORIA DELLE ARTI, DELLA MUSICA E DELLO SPETTACOLO	Decorated Romanesque cloisters in Italy. From the catalogue of figured capitals to the iconographic program: an analysis related to the context	At least ten decorated Romanesque cloisters in Italy allow to make a catalogue of figured capitals, comparative studies of iconographic programs and analysis on their relationships to the functional context (Europe: Mittelalterliche Kreuzgang 2004)
HUMANITIES (ANCIENT HISTORY, PHILOLOGY, LETTERS, ART HISTORY)	174	OSTI LETIZIA	DIPARTIMENTO DI LINGUE E CULTURE CONTEMPORANEE	The narrative techniques of Arabic literature: in search of continuity between classical and contemporary.	The project proposes to tackle the caesura between the study of classical and contemporary Arabic literature. It will employ methodologies devised for the study of medieval literature, applying it to the analysis of modern and contemporary production
HUMANITIES (ANCIENT HISTORY, PHILOLOGY, LETTERS, ART HISTORY)	175	ESPOSITO EDOARDO	DIPARTIMENTO DI FILOLOGIA MODERNA	Avant-gardes and experimental literature in the twentieth century: language, genres and editorial mediation	Twentieth century avant-garde and experimental literature will be analysed through the study of the materials conserved at Apice archives (Reggi Fund, Scheiwiller Fund) in order to assess choices concernig genre and language



HUMANITIES (ANCIENT HISTORY, PHILOLOGY, LETTERS, ART HISTORY)	176	TURCHETTA GIOVANNI	DIPARTIMENTO DI FILOLOGIA MODERNA	Genres and styles in the urban representation : Milan from Verga's "the town most town in Italy" to the multiple plots of Testori's Secrets	The research will focus on narrative structures and stylistical and rhetorical forms by which prose writers and poets represented Milan as a scenario example of the literary and cultural modernity from Unification to the end of the 20th century
HUMANITIES (ANCIENT HISTORY, PHILOLOGY, LETTERS, ART HISTORY)	177	PAGETTI CARLO	DIPARTIMENTO DI SCIENZE DEL LINGUAGGIO E LETTERATURE STRANIERE COMPARATE	Shakespeare between playtext and performance: critical perspectives today	"The project focuses on the critical debate on Shakespeare (interpretation, biography, collaborations); on the staging of Shakespeare's texts and the relationship between the English area of the Department and Piccolo Teatro (creation of database)."
HUMANITIES (ANCIENT HISTORY, PHILOLOGY, LETTERS, ART HISTORY)	178	NISSIM LIANA	DIPARTIMENTO DI SCIENZE DEL LINGUAGGIO E LETTERATURE STRANIERE COMPARATE	The presence of myth, its elaborations, its transformations, its subversions in French literature and in Francophone literatures	The research group "'Mythe à Milan'" of this Department, in collaboration with the University of Clermont-Ferrand, investigates the different transformations and hybridizations the myth undergoes to in its literary rewritings.
HUMANITIES (ANCIENT HISTORY, PHILOLOGY, LETTERS, ART HISTORY)	179	SLAVAZZI FABRIZIO	DIPARTIMENTO DI SCIENZE DELL'ANTICHITA'	Italy between East and West: contacts and exchanges in ancient times	Italy as a center of trade and cultural contacts and exchanges in various historical periods of antiquity, from prehistory to late antiquity, through the archaeological researches
HUMANITIES (ANCIENT HISTORY, PHILOLOGY, LETTERS, ART HISTORY)	180	PIACENTINI PATRIZIA	DIPARTIMENTO DI SCIENZE DELL'ANTICHITA'	Saqqara and Thebes in the Varille Collection of the Egyptological Archives of the Dipartimento di Scienze dell'Antichità, Università di Milano	Study of unpublished documents on the excavations and researches by Varille and other archaeologists (Loret, Quibell) at Saqqara and Thebes, very important in ancient Egyptian history; analysis of texts; localisation and study of the objects found-



HUMANITIES (ANCIENT HISTORY, PHILOLOGY, LETTERS, ART HISTORY)	181	ZANETTO GIUSEPPE	DIPARTIMENTO DI SCIENZE DELL'ANTICHITA'	The texts of Greek and Latin literature: editions, interpretations , history of transmission and Fortleben	Working at critical editions and commentaries; literary interpretations; intertextual researches on themes and genres; researches on the transmission of texts and their Fortleben; researches on local traditions and their literary elaboration.
HUMANITIES (ANCIENT HISTORY, PHILOLOGY, LETTERS, ART HISTORY)	182	MANERA DANILO	DIPARTIMENTO DI SCIENZE DEL LINGUAGGIO E LETTERATURE STRANIERE COMPARATE	Contemporary narrative in Spanish: dynamics of literary genres, influence of media and publishers, critical reception and translation in Italy.	Spanish and Spanish-American fiction of the last 20 years in the perspective of reshaping and fusion of literary genres and interaction with traditional and new medias, considering also the role in defining the image of those countries in Italy.
HUMANITIES (ANCIENT HISTORY, PHILOLOGY, LETTERS, ART HISTORY)	183	FORABOSCHI DANIELE	DIPARTIMENTO DI SCIENZE DELL'ANTICHITA'	Opposition forms in ancient world	Ancient world is marked by social,cultural and political contrasts and contradictions,which are cause of many and long conflicts between slaves and their owners,different cultures and religions,projects and political ambitions which faced one another
HUMANITIES (ANCIENT HISTORY, PHILOLOGY, LETTERS, ART HISTORY)	184	CATENACCIO PAOLA	DIPARTIMENTO DI LINGUE E CULTURE CONTEMPORANEE	The construction of terrorism across genres and discourses: Linguistic perspectives	The research will focus on the discursive construction of terrorism across various genres and discourses (ranging from journalism to legal and political discourse) with special regard for diaphasic and diamesic variation.
HUMANITIES (ANCIENT HISTORY, PHILOLOGY, LETTERS, ART HISTORY)	185	DAGRADA ELENA	DIPARTIMENTO DI STORIA DELLE ARTI, DELLA MUSICA E DELLO SPETTACOLO	Italian cinema and non- hegemonic film criticism in the second postwar period	The research aims to study the Italian cinema in the second postwar period and its relations with the forms of film criticism which can be considered as non-hegemonic in respect to political positions, forms of publication and limits of circulation.
HUMANITIES (ANCIENT HISTORY, PHILOLOGY, LETTERS, ART HISTORY)	186	CALVI MARIA VITTORIA	DIPARTIMENTO DI LINGUE E CULTURE CONTEMPORANEE	Pragmatic aspects of oral communicatio n in the Hispanic communities in Italy	The research aims to examine the linguistic and pragmatic aspects which characterize the oral discourse of Spanish speaking communities in Italy, stressing the role of language in social integration and in identity processes.



HUMANITIES (ANCIENT HISTORY, PHILOLOGY, LETTERS, ART HISTORY)	187	BROGI GIOVANNA	DIPARTIMENTO DI STUDI LINGUISTICI, LETTERARI E FILOLOGICI (EUROPA CENTRO-SETT. E ORIENT)	The Russian Language: The Language of the Empire and its Relationship with the Languages of Peripheries (18th Century)	Late evolution of Church Slavonic, typology and linguistic strategies in the formation of literary languages among the Eastern Slavs. Linguistic variety in different cultural centres and singular authors. Linguistic self-perception.
HUMANITIES (ANCIENT HISTORY, PHILOLOGY, LETTERS, ART HISTORY)	188	BONFADINI GIOVANNI	DIPARTIMENTO DI SCIENZE DELL'ANTICHITA'	Variation as expression of relationship between languages and their users and as factor of linguistic change.	It is required that projects describe and explain, in synchronic and/or diachronic perspective, cases of linguistic variation, with reference to languages from ancient to modern times in their oral and written uses.
HISTORY, PHILOSOPHY, PEDAGOGY, PSYCHOLOGY	189	BRAIDA LODOVICA	DIPARTIMENTO DI SCIENZE DELLA STORIA E DELLA DOCUMENTAZIONE STORICA	Book history and reading history in Italy (XIXth-XXth). Publishing strategies addressing new readers.	"The research aims at describing the activity of Italian publishers between XIXth and XXth centuries; paying attention to collections for new readers; integration strategies between press and book publishing; translations and contribution by the editors."
HISTORY, PHILOSOPHY, PEDAGOGY, PSYCHOLOGY	190	SCARAMELLINI GUGLIELMO	DIPARTIMENTO DI GEOGRAFIA E SCIENZE UMANE DELL'AMBIENTE	Geography and contemporary city	Geography and cities through the contemporary economic, social, environmental and cultural transformations, in regards of networks, flows of people, information, material and immaterial assets
HISTORY, PHILOSOPHY, PEDAGOGY, PSYCHOLOGY	191	INGHILLERI DI VILLADAURO PAOLO MARIA	DIPARTIMENTO DI GEOGRAFIA E SCIENZE UMANE DELL'AMBIENTE	Social psychology and politics: psycho-social models for new forms of collective practices and individual development	Study of emerging cases using quali-quantitative methods. Development of new psycho- social models characterized by political actions, individual psychological well-being, optimal community processes.
HISTORY, PHILOSOPHY, PEDAGOGY, PSYCHOLOGY	192	PRATO PREVIDE ALBRISI COLOMBAN EMANUELA	DIPARTIMENTO DI SCIENZE E TECNOLOGIE BIOMEDICHE	Evolution and ontogeny of cognitive abilities and social competence in humans and other socially complex species.	Experimental and observational study of cognitive abilities and social competence in preverbal children and other socially complex species (non human primates, domestic dog) to understand the evolution and development of social cognition.



HISTORY, PHILOSOPHY, PEDAGOGY, PSYCHOLOGY	193	SORESINA MARCO	DIPARTIMENTO DI SCIENZE DELLA STORIA E DELLA DOCUMENTAZIONE STORICA	Political aggregation and illegal networks in working-class neighbourhood s: a comparative historical study between European cities in the 20th century	Comparative historical research on the interaction between political organizations, unions, associations, labour conflict and illegal networks, in workers settlements of european cities in the 20th century
HISTORY, PHILOSOPHY, PEDAGOGY, PSYCHOLOGY	194	ZERBI MARIA CHIARA	DIPARTIMENTO DI STORIA DELLE ARTI, DELLA MUSICA E DELLO SPETTACOLO	Water Landscapes: Cultural Resources for Regional Development	Water is an important resource not only from a functional point of view, but also from an aesthetic point of view. Examples of Water Landscapes need to be analysed to reveal their potentialities for regional development.
HISTORY, PHILOSOPHY, PEDAGOGY, PSYCHOLOGY	195	ZECCHI STEFANO	DIPARTIMENTO DI FILOSOFIA	The language between concept and symbolic expression	In aisthesis language becomes crucial as to the relation between predicative and pre- predicative: the research will investigate its status within its symbolic function, outlining possible developments in the scope of poetic language.
HISTORY, PHILOSOPHY, PEDAGOGY, PSYCHOLOGY	196	MERATI GIAMPIERO	DIPARTIMENTO DI SCIENZE DELLO SPORT, NUTRIZIONE E SALUTE	Autonomic nervous system adaptations induced by physical training	The effects of training (adaptation to training load and to training type) on the autonomic nervous system will be analyzed by evaluating heart rate and blood pressure variability.
HISTORY, PHILOSOPHY, PEDAGOGY, PSYCHOLOGY	197	LANARO GIORGIO VITTORIO	DIPARTIMENTO DI FILOSOFIA	Immanuel Kant between autonomy and eudaimonism: ethical foundation, moral motivation, history of the involved ideas and research on Kant's sources	The proposed research aims to carry out novel significant results in the framework of the present Kantforschung. The focus is on the historical development of a specific foundationally and motivationally relevant topic in Kant's thought.



HISTORY, PHILOSOPHY, PEDAGOGY, PSYCHOLOGY	198	ALBERTI GIAMPIETRO	DIPARTIMENTO DI SCIENZE DELLO SPORT, NUTRIZIONE E SALUTE	Study of the genetic variants influencing the phenotype of strength and power- related performance in elite athletes.	To characterize the ACE genetic variants (ACE I/D) in saliva/blood samples of strength and power athletes and to identify their association with heart and to their influence on elite performance.
HISTORY, PHILOSOPHY, PEDAGOGY, PSYCHOLOGY	199	FRANCO REPELLINI FERRUCCIO	DIPARTIMENTO DI FILOSOFIA	Natural Kinds: Aristotle and Contemporary Metaphysics	The research aims at carrying out Aristotle's conception of natural kinds in a way which has to be both theoretically articulated and well founded on texts. This theory has to be developed and evaluated with the tools of contemporary metaphysics.
HISTORY, PHILOSOPHY, PEDAGOGY, PSYCHOLOGY	200	AUDENINO PATRIZIA	DIPARTIMENTO DI STORIA DELLA SOCIETA' E DELLE ISTITUZIONI	Borders, conflicts and national identities in the 20th century Europe	The research will concern the nationalistic policies applied on boundary territories of the 20th century Europe. Starting from the case study of South Tyrol, it will adopt a comparative approach, based on archival documents, literature and memories
HISTORY, PHILOSOPHY, PEDAGOGY, PSYCHOLOGY	201	CALABI CLOTILDE	DIPARTIMENTO DI FILOSOFIA	The attribution of emotional experiences: a cognitive model	The project aims at providing a model of the cognitive mechanisms underpinning the attribution of emotional experiences. Conceptual analysis of phenomenal beliefs will be integrated with the results of affective and social neurosciences.
HISTORY, PHILOSOPHY, PEDAGOGY, PSYCHOLOGY	202	BARTOLOMEI MARIA CRISTINA	DIPARTIMENTO DI FILOSOFIA	"Ernst Cassirer's Theory of ""Original Phenomena"" and Morphological Foundation of Philosophy as ""Critical Phenomenolog y""."	Analysis of Cassirer's concept of "original phenomenon" as theoretical basis of his "critical phenomenology": comparison with Hegel's and Husserl's phenomenological perspectives and verification of compatibility with the neo- Kantian transcendentalism.
HISTORY, PHILOSOPHY, PEDAGOGY, PSYCHOLOGY	203	BRUTI LIBERATI LUIGI	DIPARTIMENTO DI SCIENZE DELLA STORIA E DELLA DOCUMENTAZIONE STORICA	Religious Freedom and Secularism. Italy and France after the Second World War	Catholic parties had a fundamental role in Italian and French politics after the Second World War. Their policies on the subject of religious freedom were very different. The project intends to highlight analogies and differences



ECONOMICS AND STATISTICS	204	BENASSI MARIO	DIPARTIMENTO DI SCIENZE ECONOMICHE, AZIENDALI E STATISTICHE	Managing patents	The research project aims at exploring possible alternatives in managing patents (i.e. use of internal structures or specialized third parties like patent brokers) and testing empirically specific hypotheses within this comparative framework
ECONOMICS AND STATISTICS	205	PILOTTI LUCIANO	DIPARTIMENTO DI SCIENZE ECONOMICHE, AZIENDALI E STATISTICHE	Benchmark analysis of SMEs' network-systems in the knowledge economy and services (i.e. destination management) in European context	Analysis of the growth paths of european SMEs and dynamic of services through an investigation on the knowledge transfer and innovation capacity within enterprise networks, on processes of internationalization and the quality of both production processes and services.
ECONOMICS AND STATISTICS	206	SAPELLI GIULIO	DIPARTIMENTO DI SCIENZE DELLA STORIA E DELLA DOCUMENTAZIONE STORICA	The Italian multinational experience in Argentina. Firms, people and technology	Economic dynamics and theory of the multinational firm in historical perspective. Efficiency and effectiveness in a transnational relational context.
ECONOMICS AND STATISTICS	207	MISSALE ALESSANDRO	DIPARTIMENTO DI SCIENZE ECONOMICHE, AZIENDALI E STATISTICHE	The european public debt crisis; impact on financial markets, debt sustainability and fiscal adjustment programs.	The effects of the European public debt crisis on financial markets and its resolution. Analysis of the role of the new EU fiscal rules and domestic political and institutional features for the success of debt reduction programs.
ECONOMICS AND STATISTICS	208	GALEOTTI MARZIO DOMENICO	DIPARTIMENTO DI SCIENZE ECONOMICHE, AZIENDALI E STATISTICHE	Innovation, technological change in energy and the environment	The determinants of technological change - innovation, adoption and diffusion - for energy and environmental technologies and the impact on greenhouse gas emission reductions: theoretical aspects and empirical analysis
ECONOMICS AND STATISTICS	209	FERRARI PIER ALDA	DIPARTIMENTO DI SCIENZE ECONOMICHE, AZIENDALI E STATISTICHE	Multivariate methods and models for handling categorical data to discover patterns in not directly observable phenomena	This research is situated in the context of categorical data analysis as a support for economic and health care decision making and could be focused on statistical models, dimensionality reduction methods, or techniques for missing data handling



POLITICAL SCIENCES AND SOCIOLOGY	210	BASSANI LUIGI MARCO	DIPARTIMENTO GIURIDICO-POLITICO	The Political Theory of Thomas Hodgskin (1787-1869)	Thomas Hodgskin is a neglected character, who has been studied as a forerunner, of Marx and Spencer. However, in order to fully appreciate his contribution, his political theory must be analyzed in the setting of British political thought.
POLITICAL SCIENCES AND SOCIOLOGY	211	BESUSSI ANTONELLA	DIPARTIMENTO DI STUDI SOCIALI E POLITICI	Democracy, political regimes and global politics	Which are the problems connected to democratic transitions and which are the conceptual hurdles that they raise for the conventional definition of democracy? The research project, empirical or normative, should be designed around this topic.
POLITICAL SCIENCES AND SOCIOLOGY	212	COLOMBO ALESSANDRO	DIPARTIMENTO DI STUDI INTERNAZIONALI	The re-discovery of the spatial dimension. The role of spatial variables in the development of the security policy of the great powers.	Despite technological development, spatial variables continue to affect the security policy of the great powers. Which tools do they employ to tackle the constraints posed by space, and in which ways do they attempt to make the best use of the advantages offered by it?
POLITICAL SCIENCES AND SOCIOLOGY	213	FIAMINGO CRISTIANA	DIPARTIMENTO DI STUDI INTERNAZIONALI	Euro-African borders construction between history and memory	Euro-African "bordering process" construction between history and memory, since the decolonization: interdisciplinary study between theoretical-conceptual framework, and empirical field-study about an African region or group of states
POLITICAL SCIENCES AND SOCIOLOGY	214	FERRERA MAURIZIO	DIPARTIMENTO DI STUDI DEL LAVORO E DEL WELFARE	New Modes of Welfare Provision in Comparative Perspectives. Areas of interventions, Actors, Institutions, and Outcomes.	Local governments, enterprises, mutualities, private insurances, philanthropic associations are becoming prominent actors of welfare financing and provision, experimenting with new contractual arrangements and partnership affecting social outcomes.



POLITICAL SCIENCES AND SOCIOLOGY	215	AMBROSINI MAURIZIO	DIPARTIMENTO DI STUDI SOCIALI E POLITICI	Migrations, multiethnic societies, citizenship processes	The argument of the project refers to: <ul style="list-style-type: none">- Socio-cultural transformations linked to migrations;- Migration policies;- Paths of migrants' integration;- Ways of access and use of citizenship rights
POLITICAL SCIENCES AND SOCIOLOGY	216	MARAFFI MARCO	DIPARTIMENTO DI STUDI SOCIALI E POLITICI	Transformation of societies, political institutions, political culture, party competition at the national and local level, and electoral behaviour.	Comparative analysis of the role of social changes on the processes of political legitimacy, the relations among political institutions, party organization and competition, and citizens and politics.
POLITICAL SCIENCES AND SOCIOLOGY	217	ZUCCHINI FRANCESCO	DIPARTIMENTO DI STUDI SOCIALI E POLITICI	Actors, policy processes and multilevel governance	Study of how interactions between public and private actors, and institutions shape the policy change and the accountability. The research may follow different paradigms and adopt a qualitative or a quantitative approach.
POLITICAL SCIENCES AND SOCIOLOGY	218	MAZZOLENI GIANPIETRO	DIPARTIMENTO DI STUDI SOCIALI E POLITICI	Culture, Media and Consumption: new lifestyles and new social identities	The theme of the research focuses on a sociological approach to the study of the transformations of media-driven communication, consumption and life styles, identity formation, social distinction and participation forms
POLITICAL SCIENCES AND SOCIOLOGY	219	REGALIA IDA	DIPARTIMENTO DI STUDI DEL LAVORO E DEL WELFARE	New and traditional modes of labour regulation in small firms in Europe. Implications for firm efficiency and worker security.	Small firms are not simply large firms in miniature. Through analysis of datasets and case studies in at least 2 countries, the specific ways in which labour is regulated and the effects on firm efficiency and worker security will be studied.