Esempi recenti di tesi sperimentali di laurea magistrale in CTF svolte all'estero mediante il Programma Erasmus+

Sede di Madrid (Spagna) (Referente: prof. Federica Pellati)

- Identification of oxidized phosphatidylcholines in non-targeted metabolomics
- Implementation of an ion-pairing RP-LC/QqQ method for the determination of highly polar endogenous metabolites and application to the study of the adrenomyeloneuropathic phenotype and adrenoleukodistrophy patients

Sede di Salamanca (Spagna) (Referente: prof. Federica Pellati)

- Exploring the mechanisms involved in the biological effects of anthocyanins from *Vaccinium myrtillus* L. using *Caenorhabditis elegans* as a model
- *In vivo* assessment of the biological activity of *Vaccinium myrtillus* L. extracts by using *Caenorhabditis elegans* as a model organism

Sede di Barcellona (Spagna) (Referente: prof. Federica Pellati)

- Synthesis of new combretastatin A-4 and resveratrol analogues with potential anticancer activity
- Design and synthesis of new glucose derivatives as *Pf*GluPho inhibitors

Sede di Cardiff (UK) (Referente: prof. Federica Pellati)

- Isolation of punicalagin from *Punica granatum* L. and evaluation of its antimicrobial activity through mucoadhesive films
- Lipoteichoic acid synthase inhibitors as potential agents for antibiotic therapy

Sede di Ginevra (Svizzera) (Referente: prof. Federica Pellati)

- Structure guided approach and molecular networking for target isolation of antiparasitic econdary metabolites from plants
- Integration of Molecular Networking and MS/MS in-silico fragmentation for the dereplication and targeted isolation of novel fungal metabolites

Sede di Giessen (Germania) (Referente: prof. Federica Pellati)

- Effect-directed analysis of vanilla fruit and products by using bio-profiling and chemical characterization of active compounds by HPTLC-UV/Vis/FLD-EDA-HRMS
- HPTLC techniques for the phytochemical characterization of herbs and spices

Sede di Pardubice (Repubblica Ceca) (Referente: prof. Federica Pellati)

- Selectivity of Separation of Natural Antioxidants in Gradient Reversed-Phase Liquid Chromatography
- Development of a HPLC method for the determination of designer benzodiazepines using UV detection.

Sede di Dublino (Irlanda) (Referente: prof. Maria Cristina Gamberini)

- Spectroscopic analysis of Human induced pluripotent stem cells and the process of their differentiation
- Raman microspectroscopy for *in vitro* monitoring of mesenchymal stem cell differentiation into different lineages and effect of nanoparticles on differentiation

Sede di Parigi (Francia) (Referente: prof. Maria Cristina Gamberini)

- Nanostructured pharmaceutical compounds for drug delivery . Application to the formulation and the physiochemical characterization of nanolipogels, nanoemulsions and nanocrystals

Sede di Budapest (Ungheria) (Referente: prof. Maria Cristina Gamberini)

- A new synthesis of spiro-quinolizine and quinoline derivates via tert-ammino effect

Sede di Coimbra (Portogallo) (Referente: prof. Maria Cristina Gamberini)

- Mechanical synthesis of new solid forms characterization by powder X-ray diffraction (XRPD), thermal analysis (differential scanning calorimetry - DSC, thermogravimetry – TG, thermomicroscopy - PLTM), infrared spectroscopy (FTIR-ATR), intrinsic dissolution studies and stability tests

Sede di Porto (Portogallo) (Referente: prof. Giovanni Tosi)

- Development and characterization of lipid nanoparticles for topical drug administration
- Production and characterization of muco-adhesive silica nanoparticles as an oral local drug delivery system

Sede di Pamplona (Spagna) (Referente: prof. Eliana Leo)

- Development of hyaluronic acid based hydrogels as scaffolds for myocardial infarction treatment
- Citotoxicity of edelfosine and edelfosine-solid lipid nanoparticles on human neuroblastoma cells

Sede di Reims (Francia) (Referente: prof. Glauco Ponterini)

- Synthesis and evaluation of pyridazinone derivatives as potent anti-inflammatory agents for the treatment of pulmonary diseases
- Development of microencapsulation methods

Sede di Rennes (Francia) (Referente: prof. Lorenzo Corsi)

- Characterization of the antiproliferative mechanism of action of a novel 2,3-benzodiazepine-4-one derivative
- Discovery of annexin A2 molecular partners in human epithelial cells cytokinesis