



UNIMORE

UNIVERSITÀ DEGLI STUDI DI
MODENA E REGGIO EMILIA

Laboratorio di Chimica Medicinale

Sintesi

Prof. Silvia Franchini

Dott. Claudia Sorbi



Molecular Modelling

Prof. Giulio Rastelli

Dott. Luca Pinzi

Biology

Prof. Carol Imbriano

Post-Doc (Progetto AIRC)

Dott. Federica Borghi

Dott. Nicolò Bisi

Laureanda

Alessia Biagini

Laureati ad oggi
(tesi sperimentale)
> 62 studenti



Progetti in corso



Identificazione di inibitori delle Istone Deacetilasi (HDAC) per il trattamento del cancro alla prostata metastatico (PI Prof. Rastelli)



Investigation of the effect of different linker chemotypes on the inhibition of histone deacetylases (HDACs)

Pasquale Linciano^{a,*}, Rosaria Benedetti^b, Luca Pinzi^a, Fabiana Russo^a, Ugo Chianese^b, Claudia Sorbi^{a,c}, Lucia Altucci^b, Giulio Rastelli^a, Livio Brasili^a, Silvia Franchini^{a,c}



JOURNAL OF ENZYME INHIBITION AND MEDICINAL CHEMISTRY
 2021, VOL. 36, NO. 1, 2080–2086
<https://doi.org/10.1080/14756366.2021.1981306>



BRIEF REPORT

OPEN ACCESS Check for updates

Inhibitors of histone deacetylase 6 based on a novel 3-hydroxy-isoxazole zinc binding group

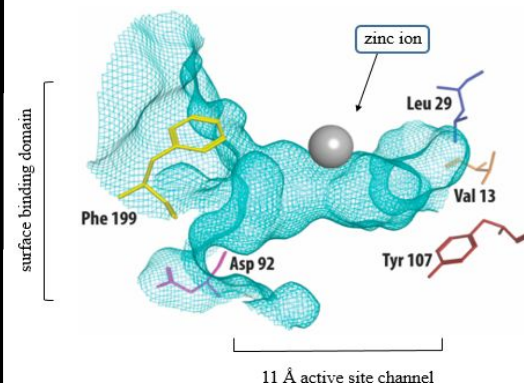
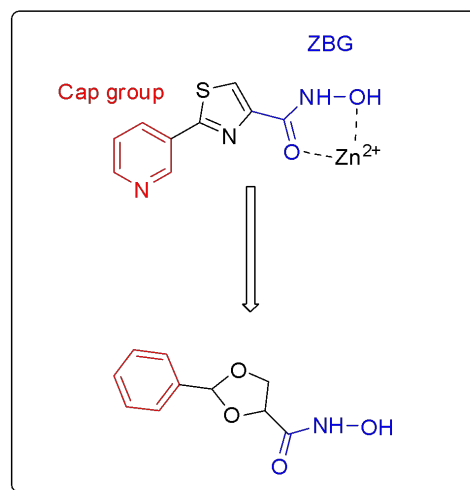
Pasquale Linciano^{a,*}, Luca Pinzi^{a,*}, Silvia Belluti^a, Ugo Chianese^b, Rosaria Benedetti^b, Davide Moi^a, Lucia Altucci^{b,c}, Silvia Franchini^a, Carol Imbriano^a, Claudia Sorbi^a and Giulio Rastelli^a



Research paper

Discovery of potent pyrrolo-pyrimidine and purine HDAC inhibitors for the treatment of advanced prostate cancer

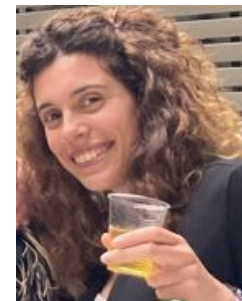
Davide Moi, Davide Bonanni, Silvia Belluti, Pasquale Linciano¹, Andrea Citarella, Silvia Franchini, Claudia Sorbi, Carol Imbriano, Luca Pinzi^{1,*}, Giulio Rastelli¹



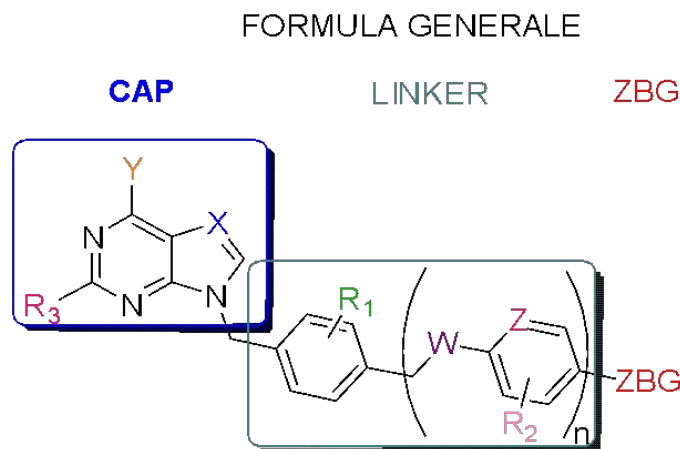
Progetti in corso



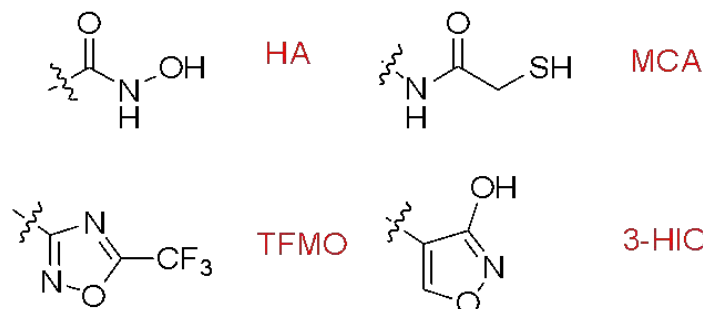
Identificazione di inibitori duali delle Istone Deacetilasi (HDAC) e Hsp90 (PI Prof. Rastelli)



Dott. Federica Borghi
(post-doc sintesi)



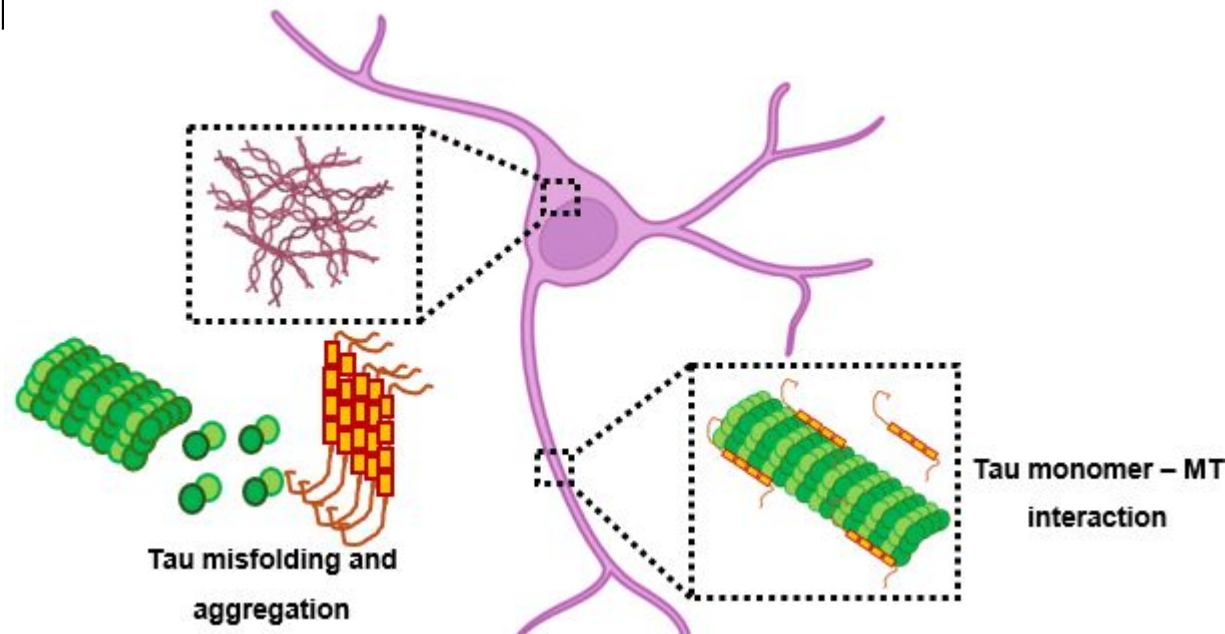
$Y = \text{Cl, OH}$
 $X = \text{CH, N}$
 $Z = \text{C, N, S}$
 $W = \text{O, NH}$
 $R_1 = R_2 = \text{H, OCH}_3, \text{F, Cl, NH}_2, \text{OH}$
 $R_3 = \text{NH}_2, \text{H}$
 $n = 0, 1$



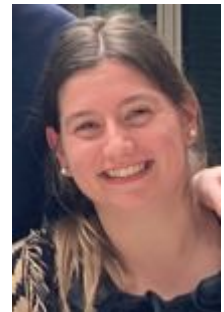
Progetti in corso

Lead optimization of **PHOX 15**, a polypharmacological drug candidate that restores physiological tau-microtubule

Inte



Dott. Nicolò Bisi
(post-doc sintesi)



Alessia Biagini
laureanda

In **Alzheimer's Disease (AD)**:

Tau aggregation → dysregulated microtubule dynamics and cell toxicity.

Progetti in corso

Lead optimization of PHOX 15, a polypharmacological drug candidate that restores physiological tau-microtubule Interaction and inhibit pathological aggregation



Dott. Nicolò Bisi
(post-doc sintesi)

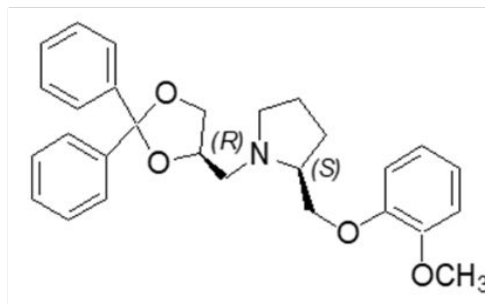
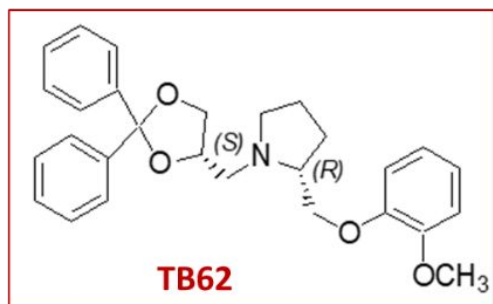


Alessia Biagini
laureanda

Interessi di ricerca

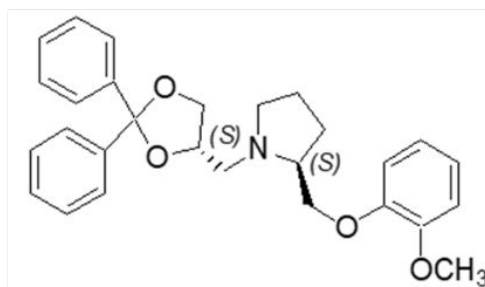
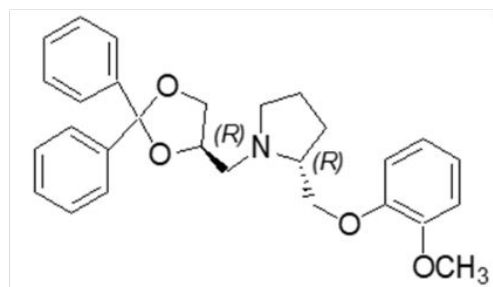
- Identificazione ligandi Recettore Serotoninergico 5-HT_{1A}

SERIE PIRROLIDINICA

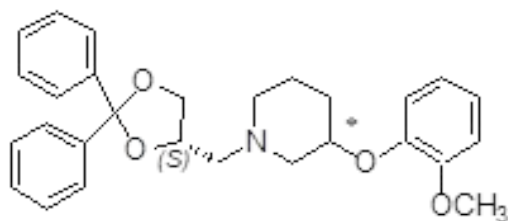


**Stati ansiosi
post-traumatici
Depressione**

Schizofrenia



SERIE PIPERIDINICA



Interessi di ricerca

- Identificazione agonisti/antagonisti 5-HT_{1A} selettivi

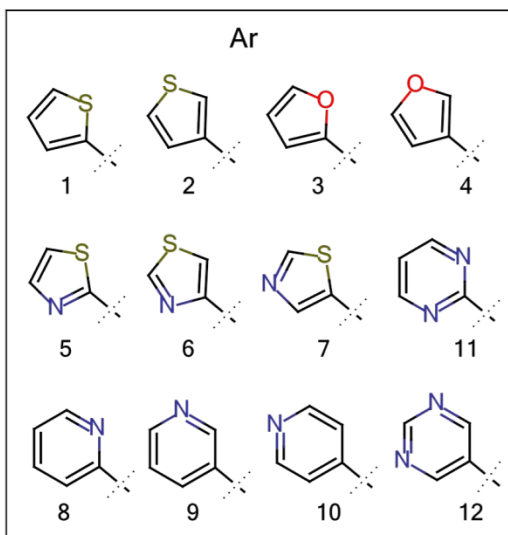
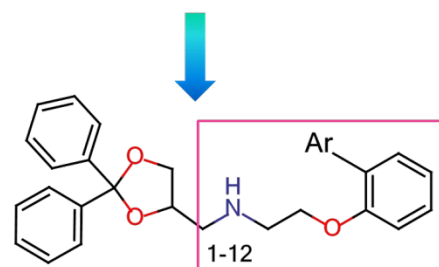
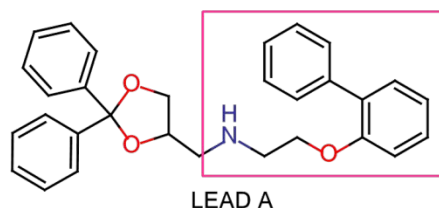
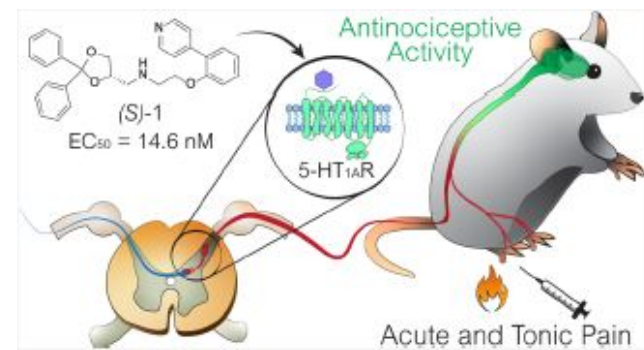
ACS Chemical
Neuroscience

pubs.acs.org/chemneuro

Research Article

Identification of a Potent and Selective 5-HT_{1A} Receptor Agonist with *In Vitro* and *In Vivo* Antinociceptive Activity

Pasquale Linciano, Claudia Sorbi, Antonella Comitato, Anna Lesniak, Magdalena Bujalska-Zadrożny, Agata Pawłowska, Anna Bielenica, Jolanta Orzelska-Górka, Ewa Kędzierska, Grażyna Biała, Simone Ronsisvalle, Silvia Limoncella, Livio Casarini, Elena Cichero, Paola Fossa, Grzegorz Satała, Andrzej J. Bojarski, Livio Brasili, Rita Bardoni, and Silvia Franchini*



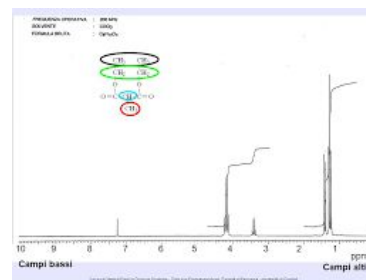
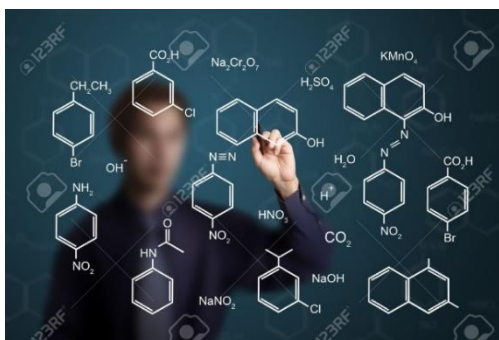
Dolore Neuropatico

Neuroprotezione

Neuroblastoma

Cosa ti deve piacere

- Chimica Organica
- Metodi fisici in chimica organica
- Laboratorio di preparazione estrattiva e sintetica dei farmaci



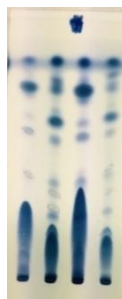
Cosa si impara a fare

- Ricerca Bibliografica



- Ottimizzazione condizioni reazione

- Monitoraggio



LC-MS



MW



Idrogenatore
a flusso

- Work up e Purificazione

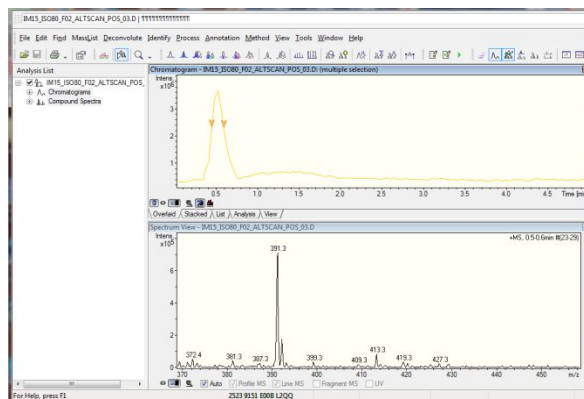
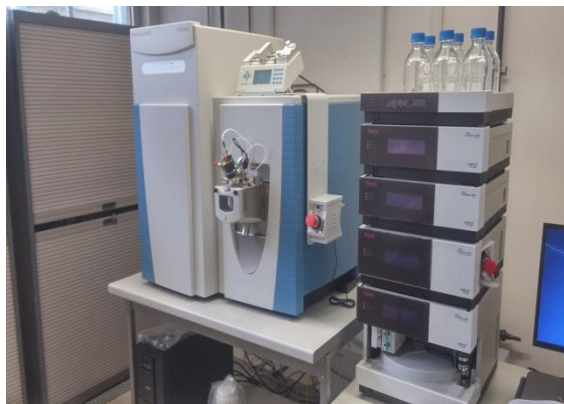


BIOTAGE SELECTK

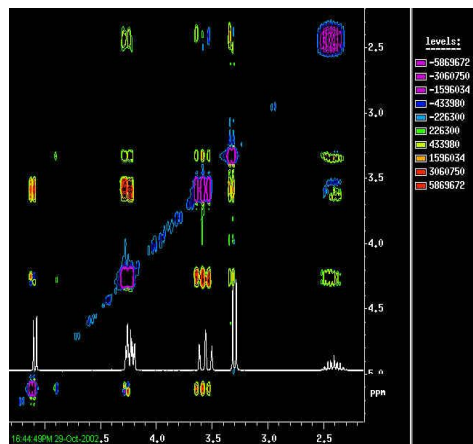
- Determinazione strutturale

Cosa si impara a fare

- Acquisizione e interpretazione spettri LC-MS (lab CIGS)

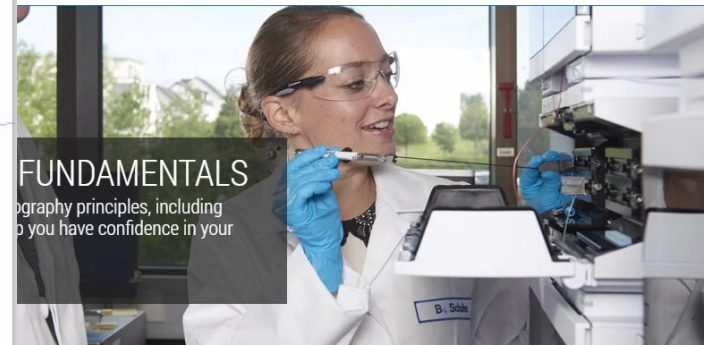
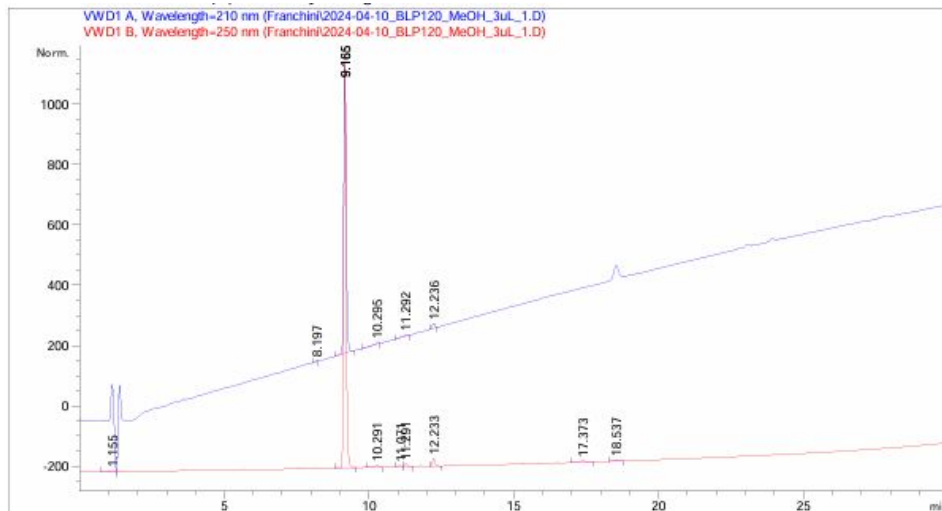


- Acquisizione e interpretazione spettri ^1H e ^{13}C -NMR (lab CIGS)



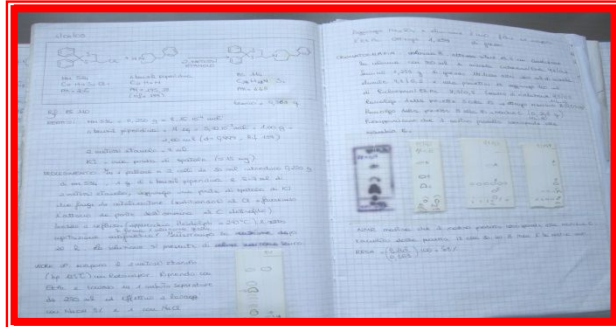
Cosa si impara a fare

- Determinazione del grado di purezza HPLC



Che cosa ci aspettiamo

- Dal quaderno di laboratorio.... alla TESI



- Interesse , puntualità, responsabilità, onestà
- Non avere paura a chiedere
- Essere propositivi
- Forza d'animo/resilienza

Il valore del fallimento nella scienza

nature

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CAREER COLUMN | 10 January 2019

Scientific progress is built on failure

Learning to handle failure is just part of scientific life, writes Eileen Parkes.

[Eileen Parkes](#)

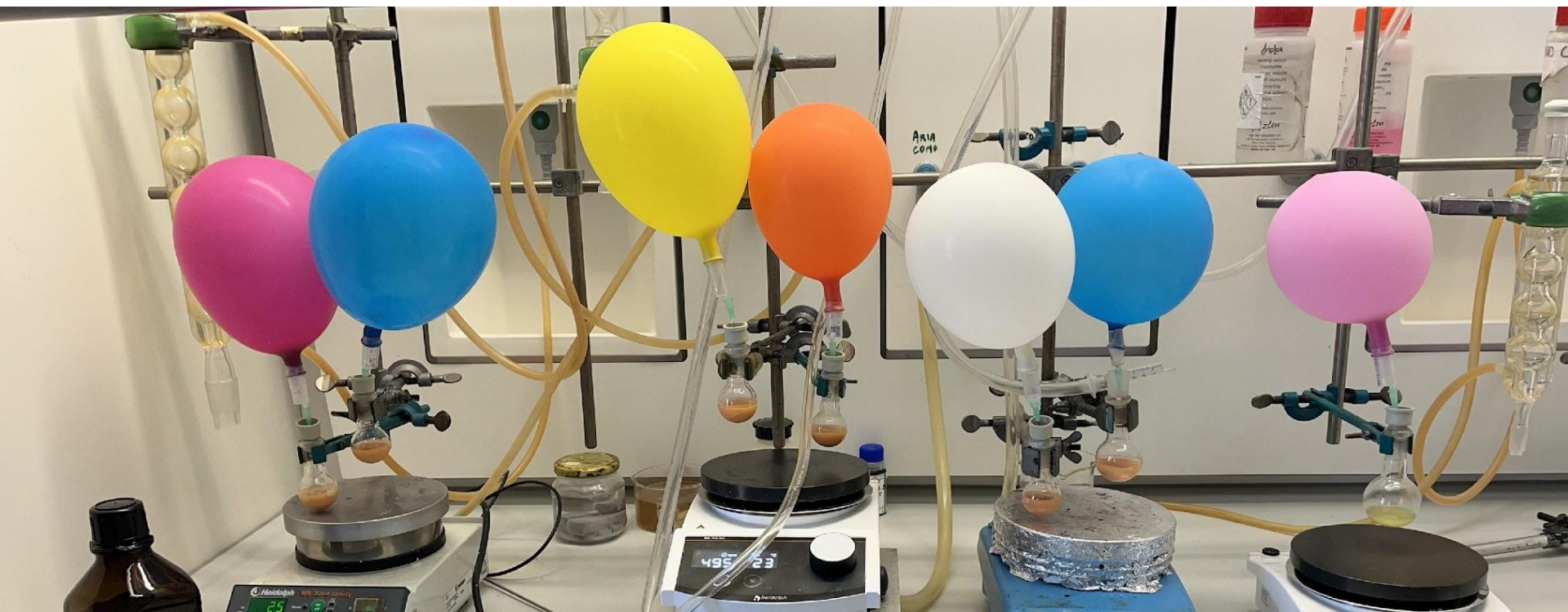


Il fallimento è qualcosa di cui tutti noi facciamo esperienza nella scienza

I progressi scientifici sono stati raggiunti a scapito di molti insuccessi

Il Fallimento di un esperimento non significa che tu sia un fallito

Grazie per l'attenzione!



I venerdì della SCI

Venerdì 16 Maggio 2025

dalle 13:00 alle 14:00 in aula U0.1

@DSCG/DSV, UniMORE, via Campi 103 Modena

CONTEST!



Quanto ne sai di chimica?

Partecipa al quiz, sfida i tuoi amici e
prova a vincere per assicurarti il premio!

L'evento si concluderà con un
aperitivo offerto dalla SCI-ER



Modulo di
iscrizione
all'aperitivo



Associati ora!
Iscrizione a costo agevolato
per studenti universitari