



FKKT

UNIVERZA V LJUBLJANI
Fakulteta za kemijo in kemijsko tehnologijo

VABILO NA PREDAVANJE
V OKVIRU DOKTORSKEGA ŠTUDIJA
KEMIJSKE ZNANOSTI / INVITATION TO THE
LECTURE WITHIN DOCTORAL PROGRAMME IN
CHEMICAL SCIENCES

Dr. Alessio Nocentini

*University of Florence
Neurofarba Department
Section of Pharmaceutical and Nutraceutical Sciences,
Sesto Fiorentino (Florence), Italy*

z naslovom / title:

Carbonic anhydrases and their inhibitors

v sredo, 18. 3. 2026 ob 15. uri
v predavalnici 1 v 1. nadstropju Fakultete za kemijo
in kemijsko tehnologijo, Večna pot 113 /
on Wednesday, 18. 3. 2026 at 15.00
in lecture room 1, 1st floor at the Faculty of
Chemistry and Chemical Technology, Večna pot 113

Vljudno vabljeni! / Kindly invited!



Abstract:

Eight genetically distinct carbonic anhydrase (CA, EC 4.2.1.1) families catalyze the CO₂ hydration reaction to bicarbonate and protons, regulating pH homeostasis, chemosensing, ion transport, and metabolism throughout all life kingdoms. Human α -CA isoforms and pathogen CAs represent validated drug targets to date. Clinically approved CA inhibitors serve as diuretics, antiglaucoma, antiepileptic, antiobesity agents, and treatments for acute mountain sickness and tumors, while recent studies have identified applications for CA modulators in rheumatoid arthritis, neuropathic pain, neurodegeneration, memory disorders, cerebral ischemia, and infections. Recent multitarget strategies united CA modulators with other pharmacophores enhancing synergistic efficacy in multifactorial diseases.