

Razpis mest za doktorske študente in podoktorske sodelavce na Kemijskem inštitutu

Razpisujemo več mest za **doktorske in podoktorske študente** na področju **dizajniranih proteinskih nanostruktur** za delo na **ERC AdG projektu MaCChines** podeljenem Romanu Jerali za obdobje 2018-2023.

Sodelavci Odseka za sintezno biologijo in imunologijo na Kemijskem inštitutu smo iznašli način dizajniranja proteinov na osnovi modulov iz obvitih vijačnic oz. t.i. »coiled-coil protein origami« (CCPO) (Gradišar in sod., Nature Chemical Biology 2013; Drobnak in sod., JACS 2017; Ljubetič in sod., Nature Biotechnology 2017, Lapenta in sod. ChemSocRev 2018), ki

so zanimive zaradi razlik z naravnimi proteini in imajo zanimiv potencial za pripravo proteinskih nanokletk različnih oblik, kot tudi za številne aplikacije. V okviru projekta nameravamo vnesti dinamiko, funkcionalizacijo in druge zanimive lastnosti za pripravo dizajniranih molekularnih strojev. Projekt bo kombiniral matematično in molekularno modeliranje, metode sintezne biologije, biofizikalno in strukturno biologijo ter razvoj biomedicinskih in drugih aplikacij.

Od kandidatov pričakujemo magisterij ali doktorat iz naravoslovja ali ved o življenju, visoko motiviranost, delavnost in znanstveno razgledanost; ponujamo pa možnost izvajanja vrhunskih znanstvenih raziskav s sodobnimi tehnikami in odlično izhodišče za razvoj znanstvene kariere. Prednost imajo kandidati z izkušnjami v molekularni/sintezni biologiji, proteinih, strukturni biologiji ali/in računalniškem modeliranju. Informacije o odseku in znanstvenih dosežkih: <https://www.ki.si/odseki/d12-odsek-za-sintezno-biologijo-in-imunologijo/>. Mesta so na odprta do zapolnitve, verjetno tudi v naslednjih letih.

Vabimo kandidate, da vprašanja in prijave z življenjepisom, motivacijskim pismom, navedbo dveh referentov in študijskega uspeha pošljejo na naslov: roman.jerala@ki.si.



Open positions for PhD students and postdoctoral researchers at the National Institute of Chemistry

Department of synthetic biology and immunology at the National Institute of Chemistry in Ljubljana, Slovenia has several open positions for **PhD students and postdoctoral researchers** to work on the **ERC Advanced Grant MaCChines** 2018-2023 awarded to Roman Jerala.

Research will be focused on the design of “**coiled-coil based protein origami**” (CCPO) nanostructures invented in his group, (Gradišar et al., Nature Chemical Biology 2013; Drobnak et al., JACS 2017; Ljubetič et al., Nature Biotechnology 2017, Lapenta et al. ChemSocRev 2018), which will be extended to include the dynamics, functionalization and other advanced properties of CCPOs to design new molecular machines.



We are looking for candidates with Masters/PhD degree in diverse fields of life- and natural-sciences that are talented and passionate for doing research in synthetic biology. We offer the opportunity to work on the exciting scientific challenges using advanced methods to establish excellent foundations for a scientific career. Experience in molecular biology/synthetic biology, protein characterization, structural biology and/or protein modeling is an advantage. The project will combine mathematical and molecular modeling, biotechnological/synthetic biology methods, biophysical and structural characterization of designed protein nanostructures and development of biomedical and other applications. Department information and our scientific achievements are described at <https://www.ki.si/en/odseki/d12-department-of-synthetic-biology-and-immunology/>. Positions are open until filled.

Please send inquiries and applications with a CV, motivation letter and two addresses of referees to roman.jerala@ki.si. Prospective PhD candidates should also enclose their grade transcripts from Bachelor and Master degrees.

