



# POROČILO O DOSEŽKIH

## PROGRESS REPORT

# 2024

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## UVODNI POZDRAV



Spoštovani,

Fakulteta za farmacijo Univerze v Ljubljani je v letu 2024 učinkovito uresničevala zastavljene cilje, kar priča o napredku na različnih področjih delovanja fakultete.

Na področju izobraževanja smo v okviru zagotavljanja kontinuirane kakovosti študijskih programov izvajali aktivnosti njihove prenov, ki so obsegale začetne korake pri prenovi enovitega magistrskega programa Farmacija (EM FAR), vključno z izvedeno SWOT analizo, pregledom evropskih praks primerljivih študijskih programov in izvedbo posvetov s strokovno javnostjo v zdravstvu in industriji. Poleg tega so se študenti prvič vpisali v prenovljen magistrski program Laboratorijska biomedicina (S2 LBM), v okviru katerega so bili posodobljeni učni načrti in dodani novi predmeti. Poseben poudarek je bil namenjen pripravi dveh novih interdisciplinarnih visokošolskih strokovnih programov, pri čemer je bilo gradivo za Biofarmacevtsko inženirstvo že v presoji na Univerzi, medtem ko je bila za Laboratorijsko biomedicino v sodelovanju z zbornico in strokovno javnostjo potrjena programska struktura novega študijskega programa.

V okviru zagotavljanja kakovostne izvedbe študija smo z delno predelavo prostorov dosegli povečanje kapacitete predavalnic, ki so sledile povečanju vpisnih mest na študiju EM FAR s 165 na 180 mest. Pedagoška in mentorska znanja smo hkrati krepili z andragoškim delavnicami ter izobraževanjem za delo z večjimi skupinami študentov. S pristojnimi na Ministrstvu za zdravje smo uskladili način izvedbe strokovnega izpita. Na podiplomski ravni smo doprinesli k širitvi kompetenc študentov in izboljšanju študijske izkušnje na programu Biomedicine, saj smo izvedli vrsto delavnic mehkih veščin in prvi raziskovalni simpozij doktorskih študentov UL FFA.

Na področju oblikovanja vključujočega akademskega okolja smo v preteklem letu uvedli vrsto ukrepov, ki prispevajo k boljši podpori študentom. Študenti s posebnimi statusi so že ob začetku študija seznanjeni z različnimi oblikami pomoči, kar jim omogoča pravočasno in uspešno vključevanje v akademsko okolje. Poleg tega smo okrepili povezavo med študenti in Kariernim centrom UL, s čimer spodbujamo njihovo profesionalno rast.

Z izvedbo promocijskih aktivnosti smo pomembno prispevali k večji prepoznavnosti alumnov in naših študijskih smeri. Za uveljavitev Kluba alumnov UL FFA smo izvajali promocijo kluba na strokovnih dogodkih in podelitvah diplom. Prav tako smo prenovili promocijske materiale študijskih programov in tako še dodatno okrepili javno prepoznavnost naših

programov. Z oblikovanjem komisije za promocijo smo sistematično pristopili k izboljšanju vidnosti fakultete na družbenih omrežjih in pripravili načrt prenov fakultetne spletne strani. Z aktivnim vključevanjem alumnov v karijerne dogodke in povečanjem števila strokovnih objav na družbenih omrežjih smo okrepili prepoznavnost in ugled fakultete tudi v širšem družbenem okolju.

Uspešne prijave zaposlenih na ARIS in EU razpise so omogočile povečanje financiranja raziskovalnih projektov za 7,7 FTE glede na leto 2023. Dodatno smo uspeli za 40 % povečati število objav v znanstvenih revijah s faktorjem vpliva, pri čemer smo podvojili število objav izjemnih znanstvenih dosežkov, ohranili pa tudi rast števila citatov objavljenih del. V okviru aktivnosti prenosa znanja smo nadaljevali z intenzivno podporo inovacijskemu delu in tako tudi v 2024 vložili dve mednarodni patentni prijavi. Za dvig raziskovalne odličnosti smo uvedli nov sistem nagrajevanja raziskovalcev, ki uspešno pridobivajo projekte in dosegajo vrhunske objave. Raziskovalno infrastrukturo smo uspešno nadgradili z dobavo in instalacijo raziskovalne opreme iz paketov 21 in 22, ki so jo sofinancirali ARIS, UL in fakulteta. Ob tem smo ohranili visoko stopnjo vključenosti zaposlenih v strokovne dejavnosti, ki potekajo v okviru Univerze v Ljubljani in širše.

Raziskovalci so se prijavljali na razpise, sodelovali in dosegali uspehe na priznanih dogodkih deležnikov farmacevtske industrije. Na razpisu 54. Krkinih nagrad so bili med petimi prejemniki velikih Krkinih nagrad kot odlični prepoznani kar trije mladi doktorji/doktorice znanosti z naše fakultete.

V okviru sistema kakovosti smo izpeljali prvo fazo postopkov spremljanja zadovoljstva zaposlenih ter hkrati z namenom dviga kakovosti študijskih programov še naprej uresničevali priporočila mednarodne agencije FINEEC. V naše vrste smo v letu 2024 sprejeli kar pet novih rednih profesorjev.

Pri zagotavljanju ustreznih prostorov za študij in delo si pomagamo z najemanjem dodatnih prostorov, kar pa je le začasna rešitev do pridobitve nove stavbe. V okviru projekta novogradnje Fakultete za farmacijo, ki naslavlja prostorski manko, smo v 2024 poleg pridobitve pravnomočnega gradbenega dovoljenja pripeljali PZI fazo projektiranja do faze recenzije projekta. Po potrditvi dokumenta Investicijskega programa na Upravnem odboru UL smo pripravljeni na dokončna investicijska izhodišča MVZI za objavo razpisa za oddajo del.

Kontinuiran razvoj fakultete omogoča, da Fakulteta za farmacijo Univerze v Ljubljani ostaja vodilna institucija, ki z odličnostjo v izobraževanju ter na znanstveno-raziskovalnem področju omogoča podporo družbi na področju farmacije in laboratorijske biomedicine ter na biomedicini sorodnih področjih. Kakovost Fakultete in njenih zaposlenih izkazujemo tudi s tem, da njen zaposleni prof. dr. Borut Božič trenutno predseduje Evropskemu združenju fakultet za farmacijo – EAFP.

prof. dr. Rok Dreu, dekan

# INTRODUCTORY GREETING



Dear Sir/Madam

In 2024, the Faculty of Pharmacy at the University of Ljubljana effectively achieved its goals set previously, which testifies to the progress made in various areas of the faculty's activities.

In the field of education, as part of ensuring continuous quality of study programs, we carried out activities to revamp them, which included the initial steps in revamping the Master's degree program in Pharmacy (EM FAR), including a SWOT analysis, a review of European practices of comparable study programs, and consultations with experts in healthcare and pharmacy. In addition, students enrolled for the first time in the revamped Master's degree program in Laboratory Biomedicine (S2 LBM), whose curricula were updated and new subjects were added. Particular emphasis was placed on the preparation of two new interdisciplinary higher education programs, with the material for Biopharmaceutical Engineering programme already under review at the University, while the program structure of the new Laboratory Biomedicine program has been approved in cooperation with the chamber and experts.

As part of our efforts to ensure high-quality study programs, we partially renovated our premises to increase the capacity of our lecture rooms, which followed the increase in enrolment in the EM FAR study program from 165 to 180 students. On the other hand, we bolstered our teaching and mentoring skills through andragogical workshops and training for working with larger groups of students. We coordinated the method of conducting the professional examination with the competent authorities at the Ministry of Health. At the postgraduate level, we contributed to the expansion of students' competencies and the improvement of the study experience in the Biomedicine program by conducting a series of soft skills workshops and the first research symposium for doctoral students at the UL FFA.

To create a more inclusive academic environment, we have introduced a series of measures over the past year that contribute to better support for students. Students with special statuses are informed about various forms of assistance at the beginning of their studies, enabling their integration into the academic environment in a timely and successful manner. In addition, we have streamlined the link between the students and the UL Career Center, thereby promoting their professional growth.

Through promotional activities, we have made a significant contribution to raising the profile of our alumni and our study programs. To establish the UL FFA Alumni Club, we promoted the club at professional events and graduation ceremonies. We

also revamped the promotional materials for our study programs, further improving public recognition of our programs. By forming a promotion committee, we took a systematic approach to improving the faculty's visibility on social media and prepared a plan to revamp the faculty's website. By actively involving alumni in career events and increasing the number of professional publications on social networks, we have boosted the faculty's recognition and reputation in the wider social environment.

Successful applications by employees to ARIS and EU calls for proposals enabled an increase in research project funding by 7.7 FTE compared to 2023. In addition, we managed to increase the number of publications in scientific journals with an impact factor by 40%, doubling the number of publications describing exceptional scientific achievements and maintaining the growth in the number of citations of published works. As part of our knowledge transfer activities, we continued to provide intensive support for innovation work and thus filed two international patent applications in 2024. To increase research excellence, we introduced a new system of rewarding researchers who successfully acquire projects and managed to publish in top-level publications. We successfully upgraded our research infrastructure with the delivery and installation of research equipment from packages 21 and 22, which were co-financed by ARIS, the University, and the faculty. At the same time, we have maintained a high level of employee involvement in professional activities taking place within the University of Ljubljana and beyond.

Researchers applied for calls, participated in and achieved success at renowned events organised by stakeholders in the pharmaceutical industry. In the 54th Krka Awards competition, three young doctors of science from our faculty were recognized as outstanding among the five recipients of the Krka Awards grand.

As part of our quality system, we carried out the first phase of employee satisfaction monitoring procedures and, at the same time, continued to implement the recommendations of the international agency FINEEC with the aim of improving the quality of our study programs. In 2024, we also welcomed five new full-time professors to our ranks.

In order to provide adequate space for study and work, we are renting additional premises, which can, however, only be a temporary solution until a new building is built. In order to build a new Faculty of Pharmacy, which addresses the lack of premises, in 2024, in addition to obtaining a valid building permit, we brought the PZI design phase to the project review phase. Following the approval of the Investment Program document by the UL Management Board, we are ready for the final investment guidelines of the MVZI in order to start the public tender.

Continuous development of the faculty enables the Faculty of Pharmacy at the University of Ljubljana to remain a leading institution, which, through excellence in education and scientific research, supports society in the fields of pharmacy and laboratory biomedicine, as well as related fields of biomedicine. The quality of the Faculty and its employees is also demonstrated by the fact that its employee, Prof. Dr. Borut Božič, currently chairs the European Association of Faculties of Pharmacy (EAFP).

Professor Rok Dreus, Dean of the Faculty

VODSTVO FAKULTETE (mandat od 1. 10. 2023 do 30. 9. 2027)  
FACULTY GOVERNANCE (mandate since 1 October to September 2027)



Fotografija: vodstvo UL FFA / Photo: UL FFA governance

prof. dr. Rok Dreu, dekan / Dean

izr. prof. dr. Martina Gobec, prodekanja za mednarodno sodelovanje / Vice-Dean of International Relations  
izr. prof. dr. Igor Locatelli, prodekan za znanstveno-raziskovalno področje / Vice-Dean of Scientific Research  
prof. dr. Lucija Peterlin Mašič, prodekanja za študijsko področje / Vice-Dean of Education

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Predstavitev Fakultete za farmacijo  
Presentation of the Faculty of Pharmacy

## POSŁANSTVO, VIZIJA IN ORGANIZIRANOST UL FFA

UL FFA je raziskovalno usmerjena pedagoška ustanova, kar izkazuje tako z objavami raziskovalnih dosežkov svojih zaposlenih v uglednih mednarodnih revijah kot tudi s prenosom teh znanj v pedagoški proces na vseh študijskih programih.

Osnovne naloge so ustvarjanje, prenašanje in ohranjanje znanja, kar ob inovativnosti in raziskavah pomeni tudi učinkovito poučevanje in ohranjanje zgodovinskega spomina, vezanega na stroko. S številom objav v znanstvenih revijah ter številom citatov in projektov z gospodarstvom se UL FFA uvršča v sam vrh Univerze v Ljubljani. Tovrstni način dela in razmišljanja je vpet tudi v študijske programe.

UL FFA kot del Univerze v Ljubljani gradi svoj ugled, integriteto in razvoj na odličnosti, učinkovitosti ter etični drži učiteljev in študentov. Farmacevtske izkušnje se gradijo na dolgoletni tradiciji tako v slovenskem kot širšem prostoru z vizijo usmerjenosti v prihodnost.

Po evropskih merilih je UL FFA srednje velika farmacevtska fakulteta, matična za širše področje farmacije, klinične biokemije in kozmetologije, ki letno sprejme 180 študentov na študijskem programu Farmacija, 90 študentov na programu Laboratorijska biomedicina (50 na 1. stopnji, 40 na 2. stopnji), 40 študentov na programu Kozmetologija, 40 študentov na programu Industrijska farmacija in od 20 do 30 študentov doktorskega študija. V zadnjih letih je na UL FFA skupno s specializanti vpisanih okrog 1550 študentov.

## MISSION, VISION, AND ORGANIZATION OF UL FFA

The Faculty of Pharmacy is a research-oriented teaching institution, as evidenced by its publications of research achievements in highly esteemed international journals and in the transfer of knowledge in all programs.

The Faculty's primary tasks are creating, transmitting, and retaining knowledge. Therefore, its priority, alongside with innovation and research, is effective teaching and maintaining the professional historical memory. The number of journal publications, citations, and projects rank the Faculty and its members at the very top of the University of Ljubljana's member institutions. This way of working and thinking is also a core part of our study programs.

As part of the University of Ljubljana, the Faculty of Pharmacy builds its reputation, integrity, and development on excellence, effectiveness, and the ethical stance of its students and teachers. We are building on the long-term tradition of pharmaceutical experience in Slovenia and beyond while always looking toward the future.

According to European criteria, the Faculty is a medium-sized pharmacy educational institution central to the wider field of pharmacy, clinical biochemistry and cosmetology. Each year, the Faculty admits 180 students to the Pharmacy program, 90 students to the Laboratory Biomedicine program (50 undergraduate and 40 graduate students), 40 students to the Cosmetology program, 40 students to the Industrial Pharmacy program and 20 to 30 to doctoral studies. In the past years, about 1550 students and specialist trainees have been enrolled in the Faculty of Pharmacy.

UL FFA ima v svoji strukturi naslednje organizacijske enote: vodstvo fakultete, tajništvo fakultete, Inštitut za farmacijo in katedre. Slednjih je šest in predstavljajo osnovne organizacijske enote pedagoškega in znanstvenoraziskovalnega dela. V sklopu Inštituta za farmacijo se izvajajo temeljni in razvojni projekti za tekoče potrebe farmacevtske stroke.

Učitelji in visokošolski sodelavci so večinoma registrirani kot raziskovalci pri Javni agenciji za raziskovalno dejavnost (ARIS) in tako poleg raziskovalcev prispevajo k raziskovalno-razvojnemu potencialu fakultete.

Družbena odgovornost UL FFA se kaže v sodelovanju z uporabniki znanja na kulturnih, gospodarskih in socialnih področjih. Tako vlogo želi ohraniti in utrditi tudi v prihodnje ter stremeti k povečevanju uveljavljenosti in ugledu v mednarodnem prostoru. S tem namenom se vključuje v mednarodna združenja in sklepa mednarodna partnerstva.

Vizija UL FFA je prispevati k sooblikovanju prihodnosti ter ostati v svet odprta, odzivna in odgovorna akademska izobraževalna in raziskovalna ustanova. Obenem stremi k ustvarjanju in širjenju znanstvenih spoznanj in delovanju v dobrobit slovenskih državljanov, s čimer prispeva k povečevanju splošnega razvoja in utrjevanju nacionalne samobitnosti.

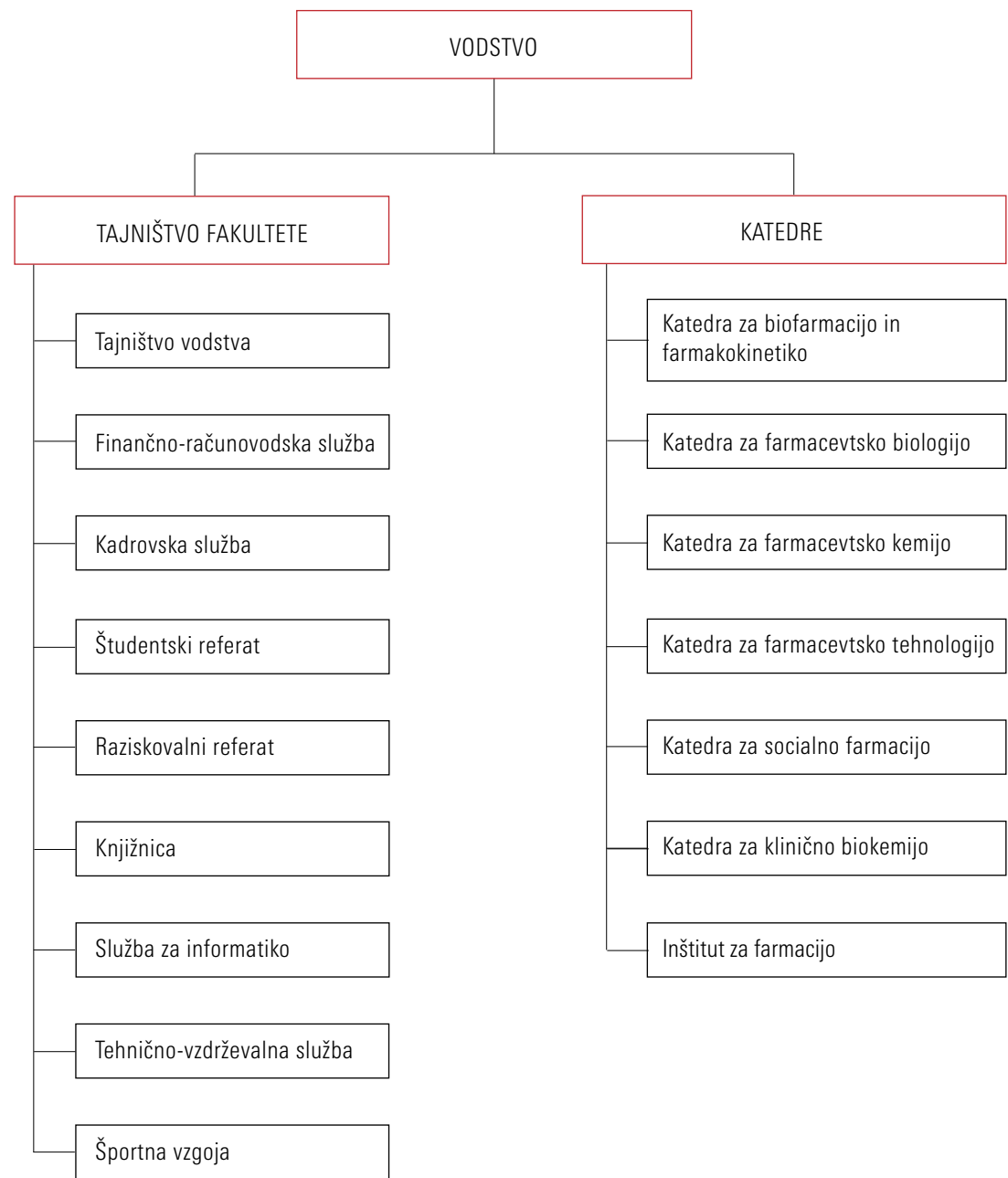
The Faculty of Pharmacy has six departments, which represent the basic organizational units of teaching and scientific research, and the Institute of Pharmacy, which implements basic and developmental projects for the pharmaceutical profession's current needs. In other words, the faculty has the following organizational units: faculty management, faculty secretariat, its six departments and the Institute of Pharmacy.

Teachers and associates are mostly registered as researchers with the Slovenian Research and Innovation Agency (ARIS) and doubtlessly possess an excellent research and development potential.

The Faculty of Pharmacy's social responsibility is reflected in the cooperation with users of knowledge in the cultural, economic, and social fields. The Faculty wants to maintain and consolidate that role in the future and strive to increase its high standing and reputation in the international arena. To this end, the Faculty is a member of international associations and enters into international partnerships.

The Faculty of Pharmacy's vision is to contribute to the future and remain an accessible, responsive and responsible academic educational and research institution. At the same time, it strives to create and disseminate scientific knowledge and work for the benefit of Slovenian citizens, thus contributing to general development and strengthening national identity.

ORGANIZACIJSKE ENOTE / FACULTY OF PHARMACY ORGANISATIONAL UNITS



KATEDRE FAKULTETE ZA FARMACIJO

**Katedra za biofarmacijo in farmakokinetiko**  
predstojnik: prof. dr. Tomaž Vovk, mag. farm.

**Katedra za farmacevtsko biologijo**  
predstojnik: izr. prof. dr. Tomaž Bratkovič, mag. farm.

**Katedra za farmacevtsko kemijo**  
predstojnik: prof. dr. Stanislav Gobec, mag. farm.

**Katedra za farmacevtsko tehnologijo**  
predstojnica: prof. dr. Mirjana Gašperlin, mag. farm.

**Katedra za socialno farmacijo**  
predstojnik: prof. dr. Mitja Kos, mag. farm.

**Katedra za klinično biokemijo**  
Predstojnik: prof. dr. Borut Božič, mag. farm., spec. med. biokem.

**Inštitut za farmacijo**  
predstojnica: prof. dr. Irena Mlinarič-Raščan, mag. farm.

DEPARTMENTS IN THE FACULTY OF PHARMACY

**Department of Biopharmaceutics and Pharmacokinetics**  
Head: Prof. Dr. Tomaž Vovk, M. Pharm.

**Department of Pharmaceutical Biology**  
Head: Assoc. Prof. Dr. Tomaž Bratkovič, M. Pharm.

**Department of Pharmaceutical Chemistry**  
Head: Prof. Dr. Stanislav Gobec, M. Pharm.

**Department of Pharmaceutical Technology**  
Head: Prof. Dr. Mirjana Gašperlin, M. Pharm

**Department of Social Pharmacy**  
Head: Prof. Dr. Mitja Kos, M. Pharm.

**Department of Clinical Biochemistry**  
Head: Prof. Dr. Borut Božič, M. Pharm., EuSpLM

**Institute of Pharmacy**  
Head: Prof. Dr. Irena Mlinarič-Raščan, M. Pharm.

ORGANI FAKULTETE

- Senat**  
predsednik: prof. dr. Rok Dreu, mag. farm.
- Akademski zbor**  
predsednica: prof. dr. Marija Sollner Dolenc, mag. farm.
- Upravni odbor**  
predsednik: prof. dr. Matjaž Jeras, mag. farm.
- Študentski svet**  
predsednica: Leonora Pretreši

THE FACULTY'S GOVERNING BODIES

- Senate**  
Chair: Prof. Dr. Rok Dreu, M. Pharm.
- Academic Assembly**  
Chair: Prof. Dr. Marija Sollner Dolenc, M. Pharm.
- Managing Board**  
Chair: Prof. Dr. Matjaž Jeras, M. Pharm.
- Student Council**  
Chair: Leonora Pretreši

TAJNIŠTVO

- Tajnik fakultete**  
Katja Višnjevec Vahčič, univ. dipl. prav.
- Tajnica vodstva**  
Barbara Kosmač Pajntar, univ. dipl. kom.  
Lidija Mataija, mag. posl. ved
- Finančno-računovodska služba**  
Saša Kulašič, univ. dipl. ekon., vodja službe
- Kadrovska služba**  
Mateja Pavlič, mag. org., vodja službe
- Študentski referat**  
Tanja Kadunc, dipl. org. tur., vodja referata
- Raziskovalni referat**  
Mateja Terčič, univ. dipl. soc., vodja referata
- Knjižnica**  
Borut Toth, prof. fil. in sociol., vodja knjižnice
- Služba za informatiko**  
Tanja Gregorič, univ. dipl. org. inf., vodja službe
- Športna vzgoja**  
viš. pred. Dušan Videmšek, prof. športne vzgoje

FACULTY SECRETARIAT

- Faculty Secretary**  
Katja Višnjevec Vahčič, LLB
- Head Secretary**  
Barbara Kosmač Pajntar, BS Comm.  
Lidija Mataija, M.Sc. Bus. Sci.
- Office of Finance and Accounting**  
Head: Saša Kulašič, M.Sc.
- Human Resources**  
Head: Mateja Pavlič, M.Sc. Org.
- Student Administration**  
Head: Tanja Kadunc, BSc (Tourism)
- Research Administration**  
Head: Mateja Terčič, BSc Soc.
- Library**  
Head: Borut Toth, Prof. Phil. and Soc.
- IT Office**  
Head: Tanja Gregorič, BSc (Organisational Informatics)
- Physical Education**  
Dušan Videmšek, Sport Education Professor

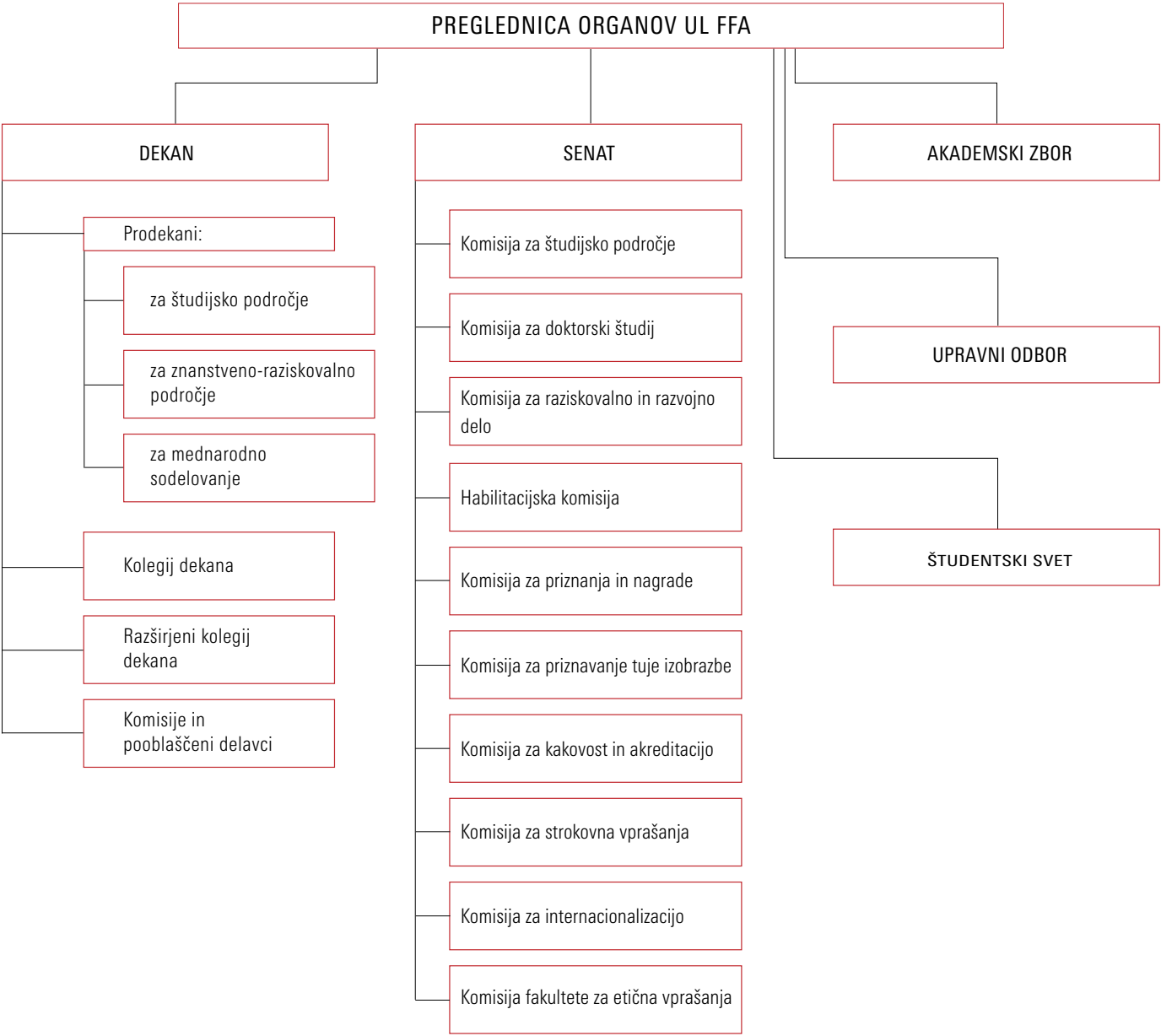
KOMISIJE SENATA

- Komisija za študijsko področje**  
predsednica: prof. dr. Lucija Peterlin Mašič, mag. farm.
- Komisija za raziskovalno in razvojno delo**  
predsednik: izr. prof. dr. Igor Locatelli, mag. farm.
- Habilitacijska komisija**  
predsednica: prof. dr. Marija Bogataj, mag. farm.
- Komisija za priznanja in nagrade**  
predsednica: prof. dr. Marija Sollner Dolenc, mag. farm.
- Komisija za priznavanje tuje izobrazbe**  
predsednica: prof. dr. Lucija Peterlin Mašič, mag. farm.
- Komisija za kakovost in akreditacijo**  
predsednik: izr. prof. dr. Janez Mravljak, mag. farm.
- Komisija za strokovna vprašanja**  
predsednica: prof. dr. Mojca Kerec Kos, mag. farm.
- Komisija za internacionalizacijo**  
predsednica: izr. prof. dr. Martina Gobec, mag. farm.
- Komisija fakultete za etična vprašanja**  
predsednik: izr. prof. dr. Simon Žakelj, mag. farm.
- Komisija za doktorski študij**  
predsednica: prof. dr. Lucija Peterlin Mašič, mag. farm.

SENATE COMMITTEES

- Study Affairs Committee**  
Chair: Prof. Dr. Lucija Peterlin Mašič, M. Pharm.
- Research and Development Committee**  
Chair: Assoc. Prof. Dr. Igor Locatelli, M. Pharm.
- Habilitation Committee**  
Chair: Prof. Dr. Marija Bogataj, M. Pharm.
- Awards and Decorations Committee**  
Chair: Prof. Dr. Marija Sollner Dolenc, M. Pharm.
- Recognition of Foreign Education Committee**  
Chair: Prof. Dr. Lucija Peterlin Mašič, M. Pharm.
- Assurance and Accreditation Committee**  
Chair: Assoc. Prof. Dr. Janez Mravljak, M. Pharm.
- Professional Issues Committee**  
Chair: Prof. Dr. Mojca Kerec Kos, M. Pharm.
- Internationalization Committee**  
Chair: Assoc. Prof. Dr. Martina Gobec, M. Pharm.
- Ethical Issues Committee**  
Chair: Assoc. Prof. Dr. Simon Žakelj, M. Pharm.
- Doctoral Study Committee**  
Chair: Prof. Dr. Lucija Peterlin Mašič, M. Pharm.

ORGANI UL FFA / GOVERNING OF THE FACULTY OF PHARMACY



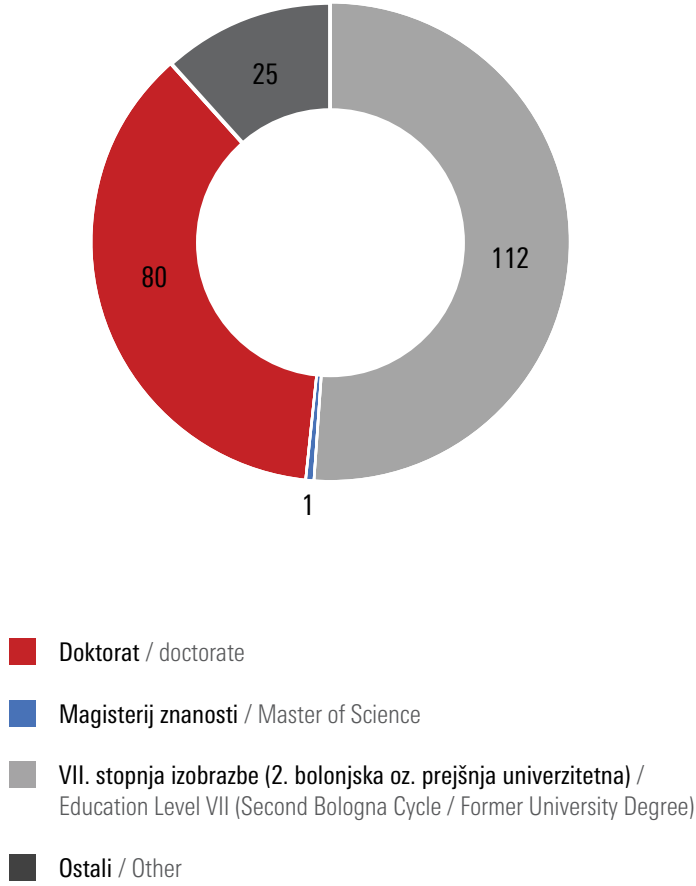
ZAPOSLENI NA FAKULTETI ZA FARMACIJO / FACULTY OF PHARMACY'S EMPLOYEES

|                                                                              |    |                                                                                            |    |
|------------------------------------------------------------------------------|----|--------------------------------------------------------------------------------------------|----|
| Univerzitetni učitelji<br>University Teachers                                | 44 | Predavatelj športne vzgoje<br>Physical Education Teacher                                   | 1  |
| Univerzitetni učitelji z delno zaposlitvijo<br>Part-time University Teachers | 10 | Tajnik fakultete<br>Faculty Secretary                                                      | 1  |
| Asistenti<br>Teaching Assistants                                             | 41 | Strokovne tehnične sodelavke<br>Technical Assistants                                       | 17 |
| Raziskovalci<br>Researchers                                                  | 52 | Strokovni administrativni in tehnični delavci<br>Expert Administrative and Technical Staff | 27 |
| Mladi raziskovalci<br>Junior Researchers                                     | 25 |                                                                                            |    |



Fotografija: Gradimo pripadnost / Photo: Team building event

IZOBRAZBENA STRUKTURA ZAPOSLENIH NA UL FFA /  
EDUCATIONAL STRUCTURE OF THE EMPLOYEES AT THE UL FFA



KATEDRA ZA KLINIČNO BIOKEMIJO  
DEPARTMENT OF CLINICAL BIOCHEMISTRY

Predstojnik katedre  
Head of the Department in 2024

prof. dr. Borut Božič, EuSpLM

Člani katedre v letu 2024  
Members of the Department in 2024

- prof. dr. Borut Božič, prof. dr. Darko Černe, prof. dr. Matjaž Jeras, prof. dr. Janja Marc, prof. dr. Irena Mlinarič-Raščan, prof. dr. Joško Osredkar
- izr. prof. dr. Saša Čučnik, izr. prof. dr. Martina Gobec, izr. prof. dr. Nataša Karas Kuželički, izr. prof. dr. Barbara Ostanek, izr. prof. dr. Helena Podgornik, izr. prof. dr. Janja Zupan
- doc. dr. Mojca Božič Mijovski, doc. dr. Marija Nika Lovšin, doc. dr. Alenka Šmid, doc. dr. Iztok Urbančič
- asist. dr. Simona Jurković Mlakar, asist. dr. Tijana Markovič, asist. dr. Jasna Omersel, asist. dr. Dunja Urbančič, asist. dr. Lucija Ana Vrščaj, asist. - razisk. dr. Živa Zajec, asist. Luka Hiti, asist. Žana Rus, asist. Lara Smrdel, asist. Gašper Tomšič, Tilen Burnik, Danijela Herga
- Manja Cedilnik, Petra Ferkov, Majda Sirnik



Fotografija: Katedra za klinično biokemijo / Photo: Department of Clinical Biochemistry

KATEDRA ZA FARMACEVTSKO BIOLOGIJO  
DEPARTMENT OF PHARMACETUCAL BIOLOGY

Predstojnik katedre  
Head of the Department in 2024

izr. prof. dr. Tomaž Bratkovič

Člani katedre v letu 2024  
Members of the Department in 2024

- prof. dr. Janko Kos, prof. dr. Samo Kreft, prof. dr. Mojca Lunder, prof. dr. Borut Štrukelj, prof. dr. Urban Švajger
- izr. prof. dr. Aleš Berlec, izr. prof. dr. Tomaž Bratkovič, izr. prof. dr. Nina Kočevlar Glavač, izr. prof. dr. Peter Korošec, izr. prof. dr. Anja Pišlar
- doc. dr. Bojan Doljak, doc. dr. Ana Mitrovič, doc. dr. Urša Pečar Fonovič, doc. dr. Eva Tavčar
- asist. dr. Meta Kokalj Ladan, asist. dr. Tina Vida Plavec, asist. dr. Petra Ratajc, asist. dr. Matjaž Ravnikar, asist. dr. Katja Schoss, asist. Klemen Gnidovec, asist. Selena Horvat, asist. Anja Suhadolc, asist. Blaž Videčnik, asist. Ana Zupančič, Zala Celan
- Irena Klančnik Mavec, Mateja Matjaž



Fotografija: Katedra za farmacevtsko biologijo / Photo: Department of Pharmaceutical Biology

KATEDRA ZA FARMACEVTSKO KEMIJO  
DEPARTMENT OF PHARMACEUTICAL CHEMISTRY

Predstojnik katedre  
Head of the Department in 2024

prof. dr. Stanislav Gobec

Člani katedre v letu 2024  
Members of the Department in 2024

- prof. dr. Marko Anderluh, prof. dr. Zdenko Časar, prof. dr. Stanislav Gobec, prof. dr. Janez Ilaš, prof. dr. Žiga Jakopin, prof. dr. Aleš Obreza, prof. dr. Lucija Peterlin Mašič, prof. dr. Marija Sollner Dolenc, prof. dr. Matej Sova, prof. dr. Urban Švajger, prof. dr. Tihomir Tomašič, prof. dr. Anamarija Zega
- izr. prof. dr. Rok Frlan, izr. prof. dr. Martina Hrast Rambaher, izr. prof. dr. Janez Mravljak, izr. prof. dr. Stane Pajk, izr. prof. dr. Izidor Sosič, izr. prof. dr. Nace Zidar
- doc. dr. Andrej Emanuel Cotman, doc. dr. Damijan Knez, doc. dr. Urban Košak
- asist. dr. Aleša Bricelj, asist. dr. Jaka Dernovšek, asist. dr. Samo Guzelj, asist. dr. Anže Meden, asist. dr. Matic Proj, asist. dr. Nika Strašek Benedik, asist. - razisk. dr. Nina Franko, asist. - razisk. dr. Alen Krajnc, asist. - razisk. dr. Andraž Oštrek, asist. - razisk. dr. Daniela Secci, asist. - razisk. dr. Marko Sever, asist. - razisk. dr. Mateja Toma, asist. - razisk. Nina Gradišek, asist. - razisk. Gašper Grošelj, asist. - razisk. Špela Janež, asist. - razisk. Ana Jug, asist. - razisk. Vid Kavaš, asist. - razisk. Peter Peršolja, asist. - razisk. Petra Seliškar, asist. Tilen Čuš, asist. Svit Ferjančič Benetik, asist. Anja Kodila, asist. Peter Mastnak-Sokolov, asist. Martina Piga, asist. Pika Pollak Sicherl, asist. Edvin Purič, asist. Natalija Trunkelj, asist. Veronika Weiss, Boštjan Adamlje, Jernej Cingl, Sara Damiani, Benjamin Aaron Davis, Ivan Džajić, Marzia Fois, Natan Koraj, Zala Kulovec, David Lukić, Emiliano Paradiso, Tjaša Slokan, Pia Štrukelj Pahović, Samuele Usai
- Katja Perc, Martina Tekavec, Damijana Zalar



Fotografija: Katedra za farmacevtsko kemijo / Photo: Department of Pharmaceutical Chemistry

KATEDRA ZA FARMACEVTSKO TEHNOLOGIJO  
DEPARTMENT OF PHARMACEUTICAL TECHNOLOGY

Predstojnica katedre  
Head of the Department in 2024

prof. dr. Mirjana Gašperlin

Člani katedre v letu 2024  
Members of the Department in 2024

- prof. dr. Rok Dreu, prof. dr. Mirjana Gašperlin, prof. dr. Petra Kocbek, prof. dr. Odon Planinšek, prof. dr. Franc Vrečer
- izr. prof. dr. Pegi Ahlin Grabnar, izr. prof. dr. Ilija German Ilić, izr. prof. dr. Špela Zupančič, izr. prof. dr. Alenka Zvonar Pobirk
- doc. dr. Maja Bjelošević Žiberna, doc. dr. Katarina Bolko Seljak, doc. dr. Mirjam Gosenca Matjaž, doc. dr. Biljana Janković, doc. dr. Mateja Starbek Zorko, doc. dr. Barbara Sterle Zorec
- asist. dr. Črt Dragar, asist. dr. Blaž Grilc, asist. dr. Zoran Lavrič, asist. dr. Tanja Potrč, asist. dr. Anže Zidar, asist. - razisk. Monika Prašnikar, asist. Ana Baumgartner, asist. Pia Berglez, asist. Nina Katarina Grilc, asist. Klemen Kirbus, asist. Mercedes Vitek
- Valerija Garb, Tatjana Hrovatič, Mojca Keržan



Fotografija: Katedra za farmacevtsko tehnologijo / Photo: Department of Pharmaceutical Technology

KATEDRA ZA BIOFARMACIJO IN FARMAKOKINETIKO  
DEPARTMENT OF BIOPHARMACEUTICS AND PHARMACOKINETICS

Predstojnik katedre  
Head of the Department in 2024  
prof. dr. Tomaž Vovk

- Člani katedre v letu 2024  
Members of the Department in 2024
- prof. dr. Marija Bogataj, prof. dr. Iztok Grabnar, prof. dr. Mojca Kerec Kos, prof. dr. Albin Kristl, prof. dr. Robert Roškar, prof. dr. Tomaž Vovk
  - izr. prof. dr. Igor Locatelli, izr. prof. dr. Simon Žakelj, izr. prof. dr. Lovro Žiberna
  - doc. dr. Žane Temova Rakuša, doc. dr. Tina Trdan Lušin, doc. dr. Jurij Trontelj
  - asist. dr. Andrej Grobin, asist. Jakob Kolar, asist. Nika Kržišnik, asist. Timeja Planinšek Parfant, asist. Nina Ravbar, asist. Armando Tratenšek, Tjaša Felicijan
  - Margareta Cof, Mihaela Kolarev, Nevenka Lilik



Fotografija: Katedra za biofarmacijo in farmakokinetiko / Photo: Department of Biopharmaceutics and Pharmacokinetics

KATEDRA ZA SOCIALNO FARMACIJO  
DEPARTMENT OF SOCIAL PHARMACY

Predstojnik katedre  
Head of the Department in 2024  
prof. dr. Mitja Kos

- Člani katedre v letu 2024  
Members of the Department in 2024
- prof. dr. Mitja Kos
  - doc. dr. Nanča Čebren Lipovec, doc. dr. Nejc Horvat, doc. dr. Lea Knez
  - asist. dr. Andreja Čufar, asist. dr. Janja Jazbar, asist. dr. Ana Kodrič, asist. Klemen Bele, asist. Nuša Japelj, asist. Eva Podgoršek, asist. Neža Rogelj Meljo
  - Marija Babnik Gatej, Brina Mitrovič Slapar



Fotografija: Katedra za socialno farmacijo / Photo: Department of Social Pharmacy

INŠTITUT ZA FARMACIJO  
INSTITUTE OF PHARMACY

Predstojnica inštituta  
Head of the Department in 2024  
prof. dr. Irena Mlinarič-Raščan

Člani inštituta v letu 2024  
Members of the Department in 2024

- doc. dr. Petra Kolenc, znan. sod. dr. Maša Kandušer, asist. dr. Marko Krošelj, asist. dr. Jernej Repas, asist. dr. Dunja Urbančič, asist. - razisk. Lana Svečko, asist. Luka Hiti, asist. Jaka Kranjc, asist. Blaž Lebar, asist. Karmen Mlinar, asist. Matija Pečnik, asist. Eva Simončič, Gordana Gosheva, Pija Košir, Maja Frelih, mag. Maja Zalokar



Fotografija: Inštitut za farmacijo / Photo: Institute of Pharmacy

TAJNIŠTVO FAKULTETE  
FACULTY SECRETARIAT

Tajnica fakultete  
Faculty Secretary  
Katja Višnjevec Vahčič, univ. dipl. prav.

Strokovni sodelavci v letu 2024  
Professional collaborators in 2024

- Marija Babnik Gatej, Blaž Bajec, Tanja Gregorič, Urban Jernejčič, Tanja Kadunc, Marjetka Kirin, Barbara Kosmač Pajntar, Saša Kulašič, Tomaž Kuštrin, Jelka Lebar, Nataša Marčec, Lidija Mataija, Matic Mrva, Sebina Mujagić, Marko Ocvirk, Mateja Pavlič, Teja Pečnik, Milena Petek, Tina Podobnik, Marta Pogačar, Milenka Sojer, Zlatko Stojanovski, Darko Šaša, Polonca Škulj, Špela Šmalc, Darja Šviga, Mateja Terčič, Boris Terobšič, Borut Toth, viš. pred. Dušan Videmšek, Katja Višnjevec Vahčič, Bernarda Žagar



Fotografija: Organizacijska enota Tajništvo / Photo: Faculty Secretariat unit

## KLJUČNI DOSEŽKI V LETU 2024 / KEY ACHIVEMENTS IN 2024

Katedra za klinično biokemijo je v letu 2024 zabeležila pomemben napredek na znanstvenem področju. Prof. dr. Joško Osredkar je skupaj s švedskimi raziskovalci pridobil patent za metodo napovedovanja tveganja raka jajčnikov z merjenjem timidin kinaze 1 v serumu ali plazmi. Asist. dr. Simona Jurković Mlakar pa je soavtorica izjemnega znanstvenega članka v prestižni reviji *Nature Reviews Drug Discovery*, ki poudarja vlogo European Innovation Network kot stičišča inovacij zdravil v Evropi s ciljem zgodnjega dialoga med razvijalci zdravil in regulatorji. Poleg tega so jo kot govorko povabili na Kemomind Science Conference 2024, kjer je sodelovala na okrogli mizi o prihodnosti regenerativne medicine.

Katedra za farmacevtsko biologijo je v letu 2024 prispevala k razumevanju bioloških procesov in razvoju novih terapevtskih strategij. Izr. prof. dr. Nina Kočevlar Glavač s sodelavci je predstavila uporabo subkritične vode kot okolju prijaznega ekstrakcijskega topila za pridobivanje polifenolnih izvlečkov s protimikrobnimi lastnostmi. Doc. dr. Eva Tavčar je raziskovala topnost bioaktivnih spojin kanabidiola in kurkumina v različnih topilih, kar omogoča optimizacijo formulacij. Izr. prof. dr. Tomaž Bratkovič in izr. prof. dr. Aleš Berlec s sodelavci sta v znanstveni reviji *Gut Microbes* predstavila inovativne terapevtske pristope za zdravljenje okužb z bakterijo *Clostridioides difficile*, medtem ko je raziskovalna ekipa prof. dr. Janka Kosa in izr. prof. dr. Anje Pišlar proučevala kompleksno vlogo  $\gamma$ -enolaze v osrednjem živčnem sistemu. Objave odražajo raznolikost in kakovost raziskovalnega dela članov Katedre za farmacevtsko biologijo UL FFA, ki s svojimi izvirnimi prispevki pomembno dopolnjujejo globalni prostor znanstvenih spoznanj na področju farmacije, biomedicine in biotehnologije.

The Department of Clinical Biochemistry recorded significant scientific progress in 2024. Professor Joško Osredkar, in collaboration with Swedish researchers, obtained a patent for a method of predicting ovarian cancer risk by measuring thymidine kinase 1 levels in serum or plasma. Assistant professor Simona Jurković Mlakar co-authored an outstanding scientific paper published in the prestigious journal *Nature Reviews Drug Discovery*, which highlights the role of the European Innovation Network as a hub for pharmaceutical innovation in Europe, aimed at fostering early dialogue between drug developers and regulators. In addition, assist. dr. Jurković Mlakar was an invited speaker at the Kemomind Science Conference 2024, where she participated in a panel discussion on the future of regenerative medicine.

The Department of Pharmaceutical Biology contributed to a deeper understanding of biological processes and the development of new therapeutic strategies. Associate professor Nina Kočevlar Glavač and her team presented the use of subcritical water as an environmentally friendly extraction solvent for obtaining polyphenolic extracts with antimicrobial properties. Assistant professor Eva Tavčar investigated the solubility of bioactive compounds cannabidiol and curcumin in various solvents, enabling formulation optimization. Associate professor Tomaž Bratkovič and associate professor Aleš Berlec, together with coworkers, published an article in *Gut Microbes*, presenting innovative therapeutic approaches to treat *Clostridioides difficile* infections, while the research teams of professor Janko Kos and associate professor Anja Pišlar explored the complex role of  $\gamma$ -enolase in the central nervous system. These publications reflect the diversity and quality of research conducted by members of the Department of Pharmaceutical Biology at the Faculty of Pharmacy, University of Ljubljana, whose original contributions significantly enrich the global body of scientific knowledge in biomedicine, and biotechnology.

## KLJUČNI DOSEŽKI V LETU 2024 / KEY ACHIVEMENTS IN 2024

Katedra za farmacevtsko kemijo je v letu 2024 izstopala kot vodilno raziskovalno središče na področju razvoja novih zdravilnih učinkovin. Posebej velja izpostaviti objavo v *Biomedicine & Pharmacotherapy* o C-terminalnih zaviralcih Hsp90 ter objavo v *Journal of Medicinal Chemistry* o protitumornem delovanju zaviralcev Hsp90. Med preglednimi članki iz leta 2024 izstopata objavi v *Medicinal Research Reviews* o zaviralcih galektina-8 ter o dualnih zaviralcih butirilholinesteraze in p38 $\alpha$ -kinaze, pa tudi objava v *Trends in Analytical Chemistry* o uporabnosti bioslojnega interferometra pri razvoju zdravilnih učinkovin. V letu 2024 so raziskovalci vložili eno mednarodno patentno prijavo. Katedra za farmacevtsko kemijo je sodelovala tudi z domačo farmacevtsko industrijo in na Brdu pri Kranju organizirala kongres CHEPON 2024 (15th International Meeting on Cholinesterases and 9th International Conference on Paraoxonases), na katerem je prof. dr. Stanislav Gobec na plenarnem predavanju predstavil večtarčne ligande za zdravljenje Alzheimerjeve bolezni.

Katedra za farmacevtsko tehnologijo je bila v letu 2024 aktivna na mednarodnih konferencah in projektih. Doc. dr. Mirjam Gosenca Matjaž so kot predavateljico povabili na 10. konferenco BBBB v Estoniji, prof. dr. Petra Kocbek pa je bila urednica posebne številke EJPS. Asist. Nina Katarina Grilc je prejela nagrado za najboljši plakat na kongresu Controlled Release Society. Raziskovalci asist. Anže Zidar in izr. prof. Špela Zupančič so objavili članek o nanovlaknih z vgrajenimi liposomi, ki je dobil nagrado Malvern Panalytical Scientific Award 2024. Ekipa Špele Zupančič je pridobila projekt Inovacijskega sklada UL, osredotočen na lokalno dostavo kurkumina in maščobnih kislin omega-3 za zdravljenje vnetja obzobnih tkiv. Katedra za farmacevtsko tehnologijo je organizirala tudi Mednarodno poletno šolo kozmetologije in sodelovala pri Noči raziskovalcev.

The Department of Pharmaceutical Chemistry distinguished itself as a leading research center in the field of new drug development. Notable achievements include a publication in *Biomedicine & Pharmacotherapy* on C-terminal Hsp90 inhibitors and another in the *Journal of Medicinal Chemistry* on the antitumour activity of Hsp90 inhibitors. Among the 2024 review papers, highlights include publications in *Medicinal Research Reviews* on galectin-8 inhibitors and on dual inhibitors of butyrylcholinesterase and p38 $\alpha$  kinase, as well as an article in *Trends in Analytical Chemistry* on the application of biolayer interferometry in drug discovery. In 2024, researchers filed one international patent application. The department also collaborated with the domestic pharmaceutical industry and organized the CHEPON 2024 Congress (15th International Meeting on Cholinesterases and 9th International Conference on Paraoxonases) at Brdo pri Kranju, where professor Stanislav Gobec delivered a plenary lecture on multitarget ligands for the treatment of Alzheimer's disease.

The Department of Pharmaceutical Technology was active in international conferences and projects. Assistant professor Mirjam Gosenca Matjaž gave an invited lecture at the 10th BBBB Conference in Estonia, while professor Petra Kocbek served as editor of a special issue of the *European Journal of Pharmaceutical Sciences*. Assistant Nina Katarina Grilc received the Best Poster Award at the Controlled Release Society Congress. Research assistant Anže Zidar and associate professor Špela Zupančič published a paper on nanofibers incorporating liposomes, which received the Malvern Panalytical Scientific Award for 2024. The research team of associate professor Špela Zupančič also obtained a project funded by the UL Innovation Fund, focused on local delivery of curcumin and omega-3 fatty acids for the treatment of periodontal inflammation. The department also organized the International Summer School of Cosmetology and participated in the European Researchers' Night event.

## KLJUČNI DOSEŽKI V LETU 2024 / KEY ACHIVEMENTS IN 2024

Katedra za biofarmacijo in farmakokinetiko je v letu 2024 razvijala raziskovalno odličnost, kar potrjujeta dve objavi v uglednih revijah z visokim dejavnikom vpliva. Posebej izstopa članek, objavljen v *Redox Biology*, ki kvantitativno ovrednoti 27 biomarkerjev oksidativnega stresa pri kronični vnetni črevesni bolezni ter poudari njihov potencial za boljše spremljanje aktivnosti bolezni in izboljšanje zdravstvene obravnave bolnikov. Raziskovalci katedre za biofarmacijo in farmakokinetiko so tudi razvijali inovativne analitične metode na različnih področjih, med drugim tudi v okviru evropskega projekta PARC z objavo v ugledni reviji *Environment International*.

Katedra za socialno farmacijo je bila v letu 2024 aktivna na področju farmakovigilance in inovativnega načina izobraževanja s poudarkom na digitalizaciji in uporabi novih orodij IKT. Sodelovali so v konzorciju EU Pharmacoepidemiology and Pharmacovigilance pri projektih Evropske agencije za zdravila, kot je CONTROL-EU, ki preučuje sisteme s kontroliranim dostopom in distribucijo zdravil. Erasmus+ projekt DOMINOS je omogočil razvoj digitalnih postaj OSCE za študente medicine, zobozdravstva in farmacije, sodelovali pa so tudi pri projektu ULTRA, ki krepi komunikacijske kompetence v digitalnem okolju in sodelujoče usposablja za trajnostni razvoj in krizno komuniciranje.

The Department of Biopharmaceutics and Pharmacokinetics continued to advance research excellence, as evidenced by two publications in high-impact journals. Notably, an article published in *Redox Biology* quantitatively evaluated 27 oxidative stress biomarkers in chronic inflammatory bowel disease, highlighting their potential for better disease activity monitoring and improved patient care. The department's researchers also developed innovative analytical methods in various fields, including within the European PARC project, resulting in a publication in the prestigious journal *Environment International*.

The Department of Social Pharmacy was active in the fields of pharmacovigilance and innovative education methods, emphasizing digitalization and the use of new ICT tools. The department participated in the EU Pharmacoepidemiology and Pharmacovigilance Consortium on European Medicines Agency projects such as CONTROL-EU, which examines systems for controlled access and distribution of medicines. The Erasmus+ DOMINOS project enabled the development of digital OSCE stations for students of medicine, dentistry, and pharmacy, while participation in the ULTRA project improved digital communication skills and provided training for sustainable development and crisis communication.

## KLJUČNI DOSEŽKI V LETU 2024 / KEY ACHIVEMENTS IN 2024

Inštitut za farmacijo (IF) je okrepil evropska partnerstva, vključno s projekti EATRIS-Connect, REMEDi4ALL in SIMPATHIC, ter spodbujal digitalno in zeleno preobrazbo na področju personalizirane medicine in naprednih celičnih modelov. Sodelavci Inštituta za farmacijo so organizirali delavnice ADVANCE in spletne tečaje o zdravlilih za napredno zdravljenje (ATMP), ki so bili odlično ocenjeni. Poleg tega so v sodelovanju s Katedro za farmacevtsko tehnologijo gostili delegacijo Univerze Rīga Stradiņš za izmenjavo praks na področju farmacevtskih formulacij. Objave znanstveno-raziskovalnega dela sodelavcev inštituta zajemajo študijo o zdravljenju otroške akutne limfoblastne levkemije na Kosovu ter genetsko profiliranje NUDT15 v slovenski populaciji, kar poudarja vlogo inštituta pri napredku farmakogenetike in kliničnih raziskav.

V tajništvu fakultete so v letu 2024 uspešno nudili podporo delovanju fakultete kljub zahtevnemu delu v poslovno-informacijskem sistemu SAP in kadrovskim spremembam. Uvedli so izboljšave pri administrativnih procesih, okrepili podporo zaposlenim ter spodbujali strokovno izobraževanje in aktivnosti za zdravo delovno okolje vseh zaposlenih.

The Institute of Pharmacy strengthened its European partnerships through projects such as EATRIS-Connect, REMEDi4ALL, and SIMPATHIC, promoting digital and green transformation in personalized medicine and advanced cell models. The researchers from the Institute of Pharmacy organized ADVANCE workshop and online courses on advanced therapy medicinal products (ATMPs), which received excellent feedback. Together with the Department of Pharmaceutical Technology, the institute hosted a delegation from Rīga Stradiņš University for an exchange of best practices in pharmaceutical formulation. Scientific publications from these researchers included a study on the treatment of paediatric acute lymphoblastic leukaemia in Kosovo and genetic profiling of NUDT15 in the Slovenian population, underscoring the institute's contribution to advances in pharmacogenetics and clinical research.

The Faculty Secretariat successfully supported the faculty's operations despite challenges related to the SAP business information system and staff fluctuations. Improvements were implemented in administrative processes, employee support was improved, and professional development as well as activities promoting a healthy work environment for all employees were encouraged.

# ORGANIZIRANOST ŠTUDENTOV

## Študentski svet Fakultete za farmacijo (ŠS FFA)

Študentski svet je organ fakultete, katerega člani so predstavniki letnikov, izvoljeni na letnih volitvah. ŠS FFA predstavlja študente UL FFA v organih fakultete (senat UL FFA, upravni odbor UL FFA in različne komisije) in študentskem svetu Univerze v Ljubljani. ŠS FFA se ukvarja predvsem s študijem na UL FFA ter zagovarjanjem pravic študentov na vseh ravneh zastopanja.

## Študentska organizacija Fakultete za farmacijo (ŠOFFA)

ŠOFFA je ena izmed podružnic družine Študentske organizacije Univerze v Ljubljani (ŠOU), kakršno ima vsaka fakulteta Univerze v Ljubljani. ŠOFFA organizira različne dogodke izobraževalnega in družabnega značaja, kot so božična ekskurzija, farmacevtski piknik, farmacevtsko smučanje in druge aktivnosti. Aktivnosti družabnega programa so potrebne za povezovanje mlajših in starejših študentov, kar omogoča izmenjavo znanj in izkušenj.

# STUDENT ORGANIZATION

## The Student Council UL FFA, University of Ljubljana (ŠSFFA)

The Student Council is one of the governing bodies of the faculty. Its members, who are elected annually, represent their respective programmes on a year-by-year basis. The ŠSFFA represents Faculty of Pharmacy students in other governing bodies of the Faculty (the Senate, the Managing Board and various committees), as well as in the Student Council of the University of Ljubljana. The ŠSFFA mainly deals with the programme at the Faculty of Pharmacy and defends students' rights at all levels of representation.

## Student Organization of the Faculty of Pharmacy (ŠOFFA)

The ŠOFFA is one of the ŠOU's (the University of Ljubljana Student Organization) branches, which exists at each faculty at the University of Ljubljana. The ŠOFFA holds various educational and social events, such as the Christmas excursion, pharmaceutical picnic, pharmaceutical ski trip and other activities. Social activities are necessary to connect junior and senior students, which in turn allows exchange of knowledge and experience.

## Društvo študentov farmacije Slovenije (DŠFS)

DŠFS in Študentska sekcija Slovenskega farmacevtskega društva (ŠSSFD) delujeta kot ena organizacija, ki vodi projekte in zastopa naše društvo na nacionalnem in mednarodnem nivoju. S pomočjo članov pod vodstvom koordinatorjev izvajajo različne javne kampanje, humanitarne projekte, mednarodne izmenjave Twinnet in SEP, medštudijske poletne farmacevtske tabori (IPSC), strokovne večere, trikrat letno izide študentsko glasilo Spatula, enkrat letno pa strokovna publikacija Placebo.

## Slovenian Pharmacy Students' Society (DŠFS).

The DŠFS and ŠSSFD function as a single organisation with the same team that leads projects and represents our society at national and international levels. With the help of our members and under the guidance of the coordinators the organisation carries out various public campaigns, humanitarian projects, Twinnet and SEP international exchanges, the Interdisciplinary Pharmaceutical Summer Camp (IPSC) and professional training evenings. The organisation also publishes the student newsletter Spatula three times a year and expert newsletter Placebo once a year.



## 2

Poročilo o delu  
Activity report

# ŠTUDIJSKO PODROČJE

## ŠTUDIJSKI PROGRAMI

### ENOVITI magistrski študijski program Farmacija

Študij farmacije izobražuje za reguliran poklic farmacevta skladno z evropsko direktivo 2005/36/ES in omogoča pridobitev naziva magister/magistra farmacije, ki je priznan v vseh državah članicah EU. Študij usposobi študenta za izvajanje strokovnih del in nalog na področju farmacije, vključujoč skrb in svetovanje pacientom, izdajo zdravil, proizvodnjo zdravil, razvoj in raziskave ter analizo in nadzor kakovosti zdravil. Obenem nudi osnovo za nadaljevanje študija na doktorski stopnji in je odprt za stalno vseživljenjsko strokovno usposabljanje. Študij traja 5 let in vključuje obvezno polletno praktično usposabljanje v učnih zavodih (lekarnah) in izdelavo magistrske naloge.

### UNIVERZITETNI in MAGISTRSKI študijski program Laboratorijska biomedicina

Študent laboratorijske biomedicine pridobi po prvi stopnji študija, ki traja 3 leta, naziv diplomirani inženir/diplomirana inženirka laboratorijske biomedicine (UN), po drugi stopnji, ki traja 2 leti, pa magister/magistra laboratorijske biomedicine. Po obeh stopnjah se lahko zaposli v različnih medicinskih laboratorijih in industriji, po drugi stopnji pa je možno tudi nadaljevanje študija na doktorski stopnji ali specializaciji iz medicinske biokemije.

# FIELD OF STUDY

## ACADEMIC PROGRAMMES

### Master's Degree Program in Pharmacy

The Pharmacy program trains students for the regulated profession of pharmacist in accordance with European Directive 2005/36/EC and enables them to obtain the title of Master of Pharmacy, which is recognized in all EU member states. The program qualifies students to perform professional work and tasks in the field of pharmacy, including patient care and counseling, dispensing of medicines, medicine production, development and research, and analysis and quality control of medicines. At the same time, it provides a basis for continuing studies at the doctoral level and is open to continuous lifelong professional training. The program lasts 5 years and includes mandatory six-month practical training in educational institutions (pharmacies) and the completion of a master's thesis.

### UNIVERSITY and MASTER'S study program Laboratory Biomedicine

After the first stage of study, which lasts three years, students of laboratory biomedicine obtain the title of graduate engineer of laboratory biomedicine (UN), and after the second stage, which lasts two years, they obtain the title of master of laboratory biomedicine. After both stages, they can be employed in various medical laboratories and industry, and after the second stage, it is also possible to continue studying at the doctoral level or specialize in medical biochemistry.

### UNIVERZITETNI študijski program Kozmetologija

Univerzitetni študijski program traja 3 leta, študent pa po uspešno opravljenem študiju pridobi strokovni naziv diplomirani kozmetolog/kozmetologinja (UN). Glavni namen študija je usposobiti strokovnjake na področju kozmetoloških znanosti. Poleg osnovnih znanj naravoslovne usmeritve nudi program poglobljena znanja iz strokovnih ved kozmetologije.

### MAGISTRSKI študijski program Industrijska farmacija

Magistrski študij traja 2 leti in omogoča pridobitev znanj in veščin za delo v farmacevtsko-industrijskem okolju, vendar ne v okviru reguliranega poklica farmacevta. Strokovni naziv, ki ga pridobi diplomant, je magister/magista industrijske farmacije.

### DOKTORSKI študijski program Biomedicina

Na doktorskem študiju UL FFA izvaja programe Farmacija, Klinična biokemija in laboratorijska biomedicina ter Toksikologija, ki omogočajo pridobitev naziva doktor/doktorica znanosti. Osnovna ideja študija biomedicine in izvajanja na več članicah UL je v veliki izbiri, ki bodočim doktorjem znanosti omogoča študij po meri in pridobivanje specifičnih kompetenc, ki jih težko pokriva le ena članica UL.

Za študij na UL FFA so značilni visoka motiviranost študentov, velika interdisciplinarnost programov, raznolikost študijskih pristopov in dobra povezanost s potencialnimi delodajalci tako v gospodarstvu (farmacevtska industrija, veletrgovina, predstavnost) kot v javnem sektorju (lekarna, bolnišnice, medicinski laboratoriji).

### UNIVERSITY study program Cosmetology

The university study program lasts 3 years, and after successfully completing their studies, students obtain the professional title of graduate cosmetologist (UN). The main purpose of the study is to train professionals in the field of cosmetology. In addition to basic knowledge of natural sciences, the program offers in-depth knowledge of the professional sciences of cosmetology.

### MASTER'S study program Industrial Pharmacy

The master's program lasts two years and provides knowledge and skills for working in a pharmaceutical-industrial environment, but not within the regulated profession of pharmacist. The professional title obtained by graduates is Master of Industrial Pharmacy.

### DOCTORAL study program in Biomedicine

The UL FFA offers doctoral programs in Pharmacy, Clinical Biochemistry and Laboratory Biomedicine, and Toxicology, which enable students to obtain the title of Doctor of Science. The basic idea behind the study of biomedicine and its implementation at several UL member institutions is to offer a wide range of choices, enabling future doctors of science to tailor their studies and acquire specific competences that are difficult for a single UL member institution to cover.

Studying at the UL FFA is characterized by highly motivated students, highly interdisciplinary programs, diverse study approaches, and good connections with potential employers in both the private sector (pharmaceutical industry, drugstores, representative offices) and the public sector (pharmacies, hospitals, medical laboratories).

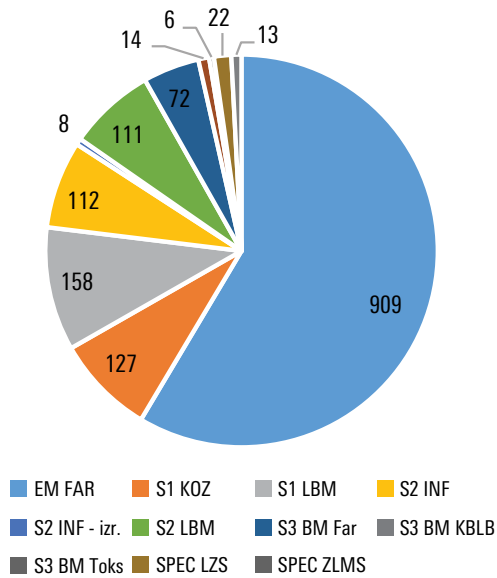
## ŠTUDENTI IN DIPLOMANTI 2023/24

V študijskem letu 2023/24 je bilo na vseh programih do-diplomskega in podiplomskega študija UL FFA vpisanih 1517 študentov.

V študijskem letu 2023/24 je zaključilo študij:

- 284 študentov na 1. in 2. stopnji (136 EM FAR, 27 S1 KOZ, 40 S1 LBM, 39 S2 INF, 42 S2 LBM)
- 17 doktorandov na 3. stopnji.

ŠTUDENTI PO ŠTUDIJSKIH PROGRAMIH V 2023/24  
STUDENTS BY PROGRAMME, 2023/24



EM FAR – enoviti magistrski študijski program Farmacija / Pharmacy (single-cycle Master degree study programme); S1 LBM – univerzitetni študijski program Laboratorijska biomedicina (1. stopnja) / Laboratory biomedicine (Bachelor degree study programme); S1 KOZ – univerzitetni študijski program Kozmetologija (1. stopnja) / Cosmetology (Bachelor degree study programme); S2 INF – magistrski študijski program Industrijska farmacija (2. stopnja) / Industrial pharmacy (Master degree study programme); S2 LBM – magistrski študijski program Laboratorijska biomedicina (2. stopnja) / Laboratory biomedicine (Master degree study programme); S3 BM – Biomedicina (3. stopnja): področja Farmacija, Klinična biokemija in laboratorijska biomedicina ter Toksikologija / Biomedicine (the interdisciplinary doctoral programme in biomedicine – scientific fields: pharmacy, clinical biochemistry and laboratory biomedicine, and toxicology); SPEC – specializacija v sodelovanju z Lekarniško zbornico Slovenije za področja: Klinična farmacija, Oblikovanje zdravil, Preizkušanje zdravil in Farmakognozija ter v sodelovanju z Zbornico laboratorijske medicine Slovenije za področje Medicinska biokemija / Certificate in collaboration with the Pharmacy Chamber of Slovenia in clinical pharmacy, medical design, medicinal testing and pharmacognosy, and in collaboration with the Laboratory Chamber of Slovenia in medical biochemistry.

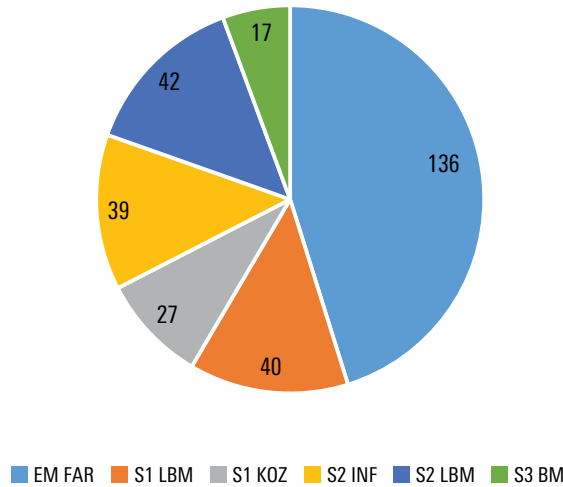
## STUDENTS AND GRADUATES IN 2023/2024

In the academic year 2023/24, 1517 students were enrolled in the undergraduate and postgraduate programmes at the University of Ljubljana's Faculty of Pharmacy.

In the academic year 2023/24 there were:

- 284 graduates in cycles 1 and 2 (136 EM FAR, 27 S1 KOZ, 40 S1 LBM, 39 S2 INF, 42 S2 LBM) and
- 17 graduates in cycle 3.

DIPLOMANTI PO ŠTUDIJSKIH PROGRAMIH V 2023/24  
GRADUATES BY PROGRAMME 2023/24



## UVELJAVLJANJE PEDAGOŠKE ODLIČNOSTI

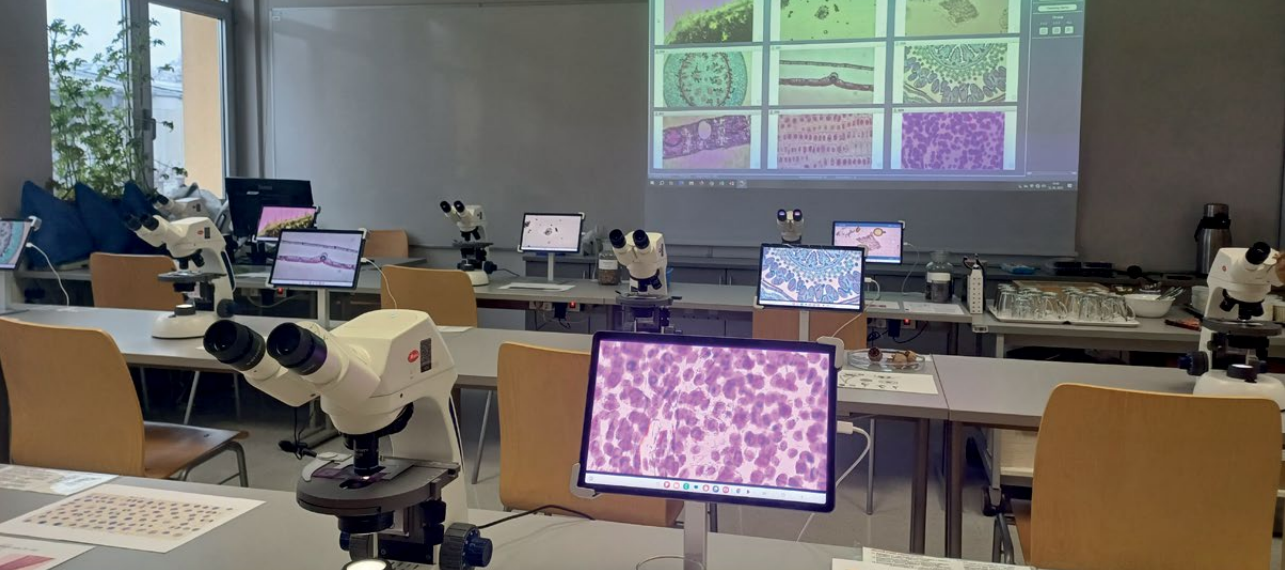
Na UL FFA smo tudi v letu 2024 nadaljevali z uveljavljanjem pedagoške odličnosti z vrsto inovativnih projektov, ki naslavljajo digitalno preobrazbo izobraževanja, opolno-močenje študentov in povečano mobilnost visokošolskih učiteljev. Te iniciative poudarjajo zavezanost UL FFA k iz-boljšanju izobraževalnih metod.

V letu 2024 smo vzpostavili eno od prvih interaktivnih didaktičnih mikroskopirnic v Sloveniji. Digitalno mi-kroskopirnico sestavlja 12 mikroskopov z integrirano Wi-fi kamero, brezžični usmerjevalnik in programska oprema. Študenti na tabličnih računalnikih in projekciji spremljajo slike vseh mikroskopov, ki so opremljeni z Wi-fi kamera-mi. Vodja vaj tako lahko v realnem času skupaj s študenti opazuje strukture preparatov iz kateregakoli mikroskopa (ali iz vseh naenkrat). Podporna programska oprema omo-goča interaktivno sodelovanje s študenti.

## PROMOTING PEDAGOGICAL EXCELLENCE

In 2024, the UL Faculty of Pharmacy continued to promote teaching excellence through a series of innovative projects addressing the digital transformation of education, stu-dent empowerment and the increased mobility of higher education teachers. These initiatives demonstrate the Fac-ulty's dedication to improving teaching methods.

In 2024, we opened one of Slovenia's first interactive di-dactic microscopy classrooms. This room consists of 12 mi-croscopes with integrated Wi-Fi cameras, a wireless router and dedicated software. Students can view images from all the microscopes on tablets and the projected display. This enables the teacher to observe specimen structures from any microscope (or all of them simultaneously) along-side the students in real time. The supporting software enables interactive engagement with students.



Fotografija: Interaktivna didaktična mikroskopirnica / Photo: Interactive didactic microscopy classroom

V letu 2024 smo v okviru posodobitve pedagoškega procesa uporabljali **virtualni laboratorij Labster**, digitalno orodje za interaktivno učenje. Virtualni laboratorij Labster omogoča izvajanje eksperimentov v simuliranem okolju, kjer študenti samostojno izvajajo poskuse, analizirajo rezultate in utrjujejo teoretično znanje. Simulacije smo uporabili v okviru laboratorijskih vaj pri predmetih 1. in 2. letnika S1LBM *Delo z biološkimi vzorci*, *Celična biologija z genetiko*, *Imunologija z imunokemijo*, *Biomedicinska analitika 1* ter *Klinična biokemija 1*. Uvedba virtualnega laboratorija je omogočila boljšo pripravo študentov na laboratorijske vaje, krepila razumevanje teorije ter spodbujala analitično in kritično mišljenje, kar je pomembno prispevalo k sodobnemu digitalno podprtemu pedagoškemu delu.

Aprila 2024 smo na Fakulteti za farmacijo Univerze v Ljubljani uspešno izvedli **1. raziskovalni simpozij doktorskih študentov UL FFA**, ki je potekal v okviru fakultetnega izobraževalnega programa razvoja mehkih in raziskovalnih kompetenc z naslovom *Brunching with Soft- and Research Skills at UL FFA: Unlocking Your Full Potential*. Na simpoziju je svoje raziskovalno delo z javnim nastopom predstavilo 34 doktorskih študentk in študentov interdisciplinarnega doktorskega študija Biomedicina. Oddani povzetki in izvedene predstavitve so prikazale izjemno raznolikost ter visoko kakovost raziskovalnega dela doktorskih kandidatov, ki delujejo na presečišču farmacije, kemije, biologije, tehnologije in medicine. Posebej velja izpostaviti prispevke doktorskih študentov, ki svoje raziskovalno delo izvajajo v sodelovanju s partnerskimi ustanovami in podjetji, kot so Univerzitetni klinični center Ljubljana, Klinika Golnik, Lek d.d., Krka d.d., Kemijski inštitut, Medicinska fakulteta UL in Inštitut Jožef Stefan.

As part of the modernisation of the teaching process in 2024, we implemented the Labster virtual laboratory, a digital tool for interactive learning. The Labster virtual laboratory allows students to carry out experiments in a simulated environment where they can perform procedures independently, analyse results and reinforce their theoretical knowledge. We used the simulations in the following first- and second-year laboratory classes: Handling Biological Samples (S1LBM), Cell Biology and Genetics, Immunology with Immunochemistry, Biomedical Analytics 1 and Clinical Biochemistry 1. Introducing the virtual laboratory improved student preparation for laboratory exercises, strengthened their understanding of theoretical concepts and promoted analytical and critical thinking — all of which contribute significantly to modern, digitally supported teaching.

In April 2024, we successfully held the 1st Research Symposium of Doctoral Students at the Faculty of Pharmacy, University of Ljubljana, which took place as part of the faculty's educational program for the development of soft and research skills entitled *Brunching with Soft- and Research Skills at UL FFA: Unlocking Your Full Potential*. At the symposium, 34 doctoral students of the interdisciplinary doctoral program in Biomedicine presented their research work in public. The abstracts submitted and the presentations given demonstrated the exceptional diversity and high quality of the research work of doctoral candidates working at the intersection of pharmacy, chemistry, biology, technology, and medicine. Particular mention should be made of the contributions of doctoral students who carry out their research work in collaboration with partner institutions and companies such as the University Medical Center Ljubljana, the Golnik Clinic, Lek d.d., Krka d.d., the Chemical Institute, the Faculty of Medicine of the University of Ljubljana, and the Jožef Stefan Institute.

Simpozij je predstavljal zaključni dogodek prve iteracije programa razvoja mehkih in raziskovalnih kompetenc, katerega cilj je dopolniti redne doktorske- in podoktorske-raziskovalne programe z dodatnimi vsebinami s področja mehkih veščin in raziskovalne odličnosti ter tako udeležencem omogočiti pridobitev dodatnih kompetenc za znanstveno odličnost, inovativnost in uspešnejši vstop na trg dela. Program je bil v letu 2023/24 izveden v sodelovanju z zunanjimi partnerji, kot so: Ljubljanski univerzitetni inkubator (LUI), Pisarna za prenos znanja UL, mednarodno uveljavljeni raziskovalci z Univerze v Oxfordu (prof. dr. Stuart Conway) ter National Cancer Institute, National Institutes of Health, ZDA (Dr. William D. Figg, Sr., MBA), in industrijski partnerji (Lek Sandoz d.d.). Dogodek je pomembno prispeval h krepitvi raziskovalne skupnosti UL FFA, spodbujanju interdisciplinarnega sodelovanja ter promociji fakultete kot odličnega raziskovalnega in izobraževalnega okolja na nacionalni in mednarodni ravni.

The symposium was the closing event of the first iteration of the soft and research skills development program, which aims to supplement regular doctoral and postdoctoral research programs with additional content in the field of soft skills and research excellence, thus enabling participants to acquire additional competencies for scientific excellence, innovation, and a more successful entry into the labor market. In 2023/24, the program was implemented in collaboration with external partners such as: the Ljubljana University Incubator (LUI), the UL Knowledge Transfer Office, internationally renowned researchers from the University of Oxford (Prof. Dr. Stuart Conway) and the National Cancer Institute, National Institutes of Health, USA (Dr. William D. Figg, Sr., MBA), and industrial partners (Lek Sandoz d.d.). The event made an important contribution to strengthening the UL FFA research community, encouraging interdisciplinary cooperation, and promoting the faculty as an excellent research and educational environment at the national and international level.



Fotografija: 1. raziskovalni simpozij doktorskih študentov / Photo: the 1<sup>st</sup> Research Symposium of Doctoral Students

# ZNANSTVENA, RAZISKOVALNA IN STROKOVNA DEJAVNOST

UL FFA je na področju raziskav in razvoja v letu 2024 dosegla več uspehov.

## Financiranje raziskav

S kontinuiranim trudom pri raziskovalnem delu v zadnjih letih in kulturo prijavljanja raziskovalnih projektov smo na UL FFA v letu 2024 glede na preteklo leto pridobili 3 nove raziskovalne projekte, 1 nov zagonski raziskovalni program UL in dosegli povečanje sredstev pri enem raziskovalnem programu. Skupno smo povečali obseg tovrstnega financiranja raziskovalnega dela za 6,8 FTE (povečanje za 17 % v primerjavi z letom 2023). Prav tako smo nekoliko povečali obseg financiranja iz evropskih mednarodnih projektov. Tudi v letu 2024 smo nadaljevali z dolgoletno rastjo celotnega obsega financiranja znanstveno-raziskovalne dejavnosti, v primerjavi z letom 2023 se je povečalo za 7,7 FTE (11 %).

## Znanstvene objave in sodelovanje

Sodelavci UL FFA so raziskovalne dosežke objavljali v prestižnih publikacijah s področja naravoslovja in medicine, s katerimi je fakulteta dosegala znatno odmevnost. Število objav znanstvenih del in s tem povezani kazalci so bili v letu 2024 za tretjino večji kot v letu 2023. UL FFA je v letu 2024 ohranila sodelovanje s ključnimi gospodarskimi subjekti na področju farmacije doma in v tujini.

# SCIENTIFIC, RESEARCH AND PROFESSIONAL ACTIVITIES

The Faculty had notable success in of research and development.

## Research funding

Building on continuous efforts in research activities and a strong culture of project proposal submission, UL FFA obtained three new research projects, one new startup research program funded by UL, and an increase in funding for one existing research program in 2024 compared to the previous year. Overall, this resulted in an increase of 6.8 FTEs (a 17% rise compared to 2023) in research funding. The faculty also recorded a slight increase in funding from European and international projects. The long-term upward trend in total research funding continued in 2024, with an overall increase of 7.7 FTEs (11%) compared to 2023.

## Scientific output and collaboration

UL FFA researchers published their scientific achievements in prestigious journals in the fields of natural and medical sciences, thereby significantly enhancing the faculty's national and international visibility and social impact. The number of scientific publications and related performance indicators in 2024 increased by one third compared to 2023. UL FFA also maintained strong collaborations with key industrial partners in the pharmaceutical sector, both in Slovenia and abroad.

## Nadgradnja raziskovalne opreme

V letu 2024 smo nadgradili raziskovalno opremo iz naslova Paketa 22 (javni razpis za sofinanciranje nakupov raziskovalne opreme s strani ARIS-a). Realizirali smo nakup sedmih večjih kosov raziskovalne opreme v višini 1 575 000 EUR, in sicer:

- konfokalni mikroskop z laserskim skeniranjem s štirimi laserji in visoko občutljivimi detektorji GaAsP,
- naprava za napredno vrednotenje teksture farmacevtskih vzorcev,
- tekočinski kromatograf visoke ločljivosti za biofarmacevtsko in fizikalno-kemijsko karakterizacijo,
- tekočinski kromatograf,
- sistem za preparativno kromatografijo sklopljen z masnim detektorjem,
- avtomatiziran visoko-zmogljivi sistem za fenotipsko analizo celic (sistem za celično barvanje),
- večmodularni čitalec mikrotitrskih ploščic (absorbanca, fluorescenca, luminiscenca).

## Upgrading research infrastructure

In 2024, the faculty upgraded its research infrastructure through Package 22, a public call by the Slovenian Research and Innovation Agency (ARIS) for co-financing research equipment purchases. A total of seven major pieces of research equipment were acquired, amounting to EUR 1,575,000, including:

- A confocal laser scanning microscope with four lasers and highly sensitive GaAsP detectors.
- A device for advanced texture evaluation of pharmaceutical samples.
- A high-resolution liquid chromatograph for biopharmaceutical and physicochemical characterization.
- A liquid chromatograph.
- A reparative chromatography system coupled with a mass detector.
- An automated high-throughput system for phenotypic cell analysis (cell staining system).
- A multimode microplate reader (absorbance, fluorescence, luminescence).

OBJAVE IN CITIRANOST  
DEL

Raziskovalci UL FFA so v letu 2024 objavili 216 znanstvenih člankov (35 % rast glede na leto 2023), od tega 186 v revijah s faktorjem vpliva (39 % rast glede na leto 2023). V revijah s faktorjem vpliva je bilo objavljenih 158 izvirnih (od tega jih je 60 % kategoriziranih kot zelo kvalitetni dosežki A') in 24 preglednih znanstvenih člankov ter 4 kratki znanstveni prispevki. Kar 24 člankov objavljenih v letu 2024 je kategoriziranih kot izjemni dosežki (A''), kar je največ doslej. V letu 2024 so objavljena dela UL FFA prejela 8305 čistih citatov, kar dosega enako raven kot leto poprej.

Preglednica ponazarja vire financiranja raziskovalne dejavnosti in razmerje znanstvenih člankov glede na FTE, financiranih iz virov ARIS in EU. Nadaljuje se trend rasti v zadnjih letih. Kazalnik učinkovitosti števila znanstvenih objav glede na skupne FTE je v letu 2024 znašal 2,4 članka na FTE, kar je veliko višje kot v zadnjih dveh letih. Zaradi povečanja sredstev je tudi kazalnik števila čistih citatov na FTE nižji kot v predhodnih letih.

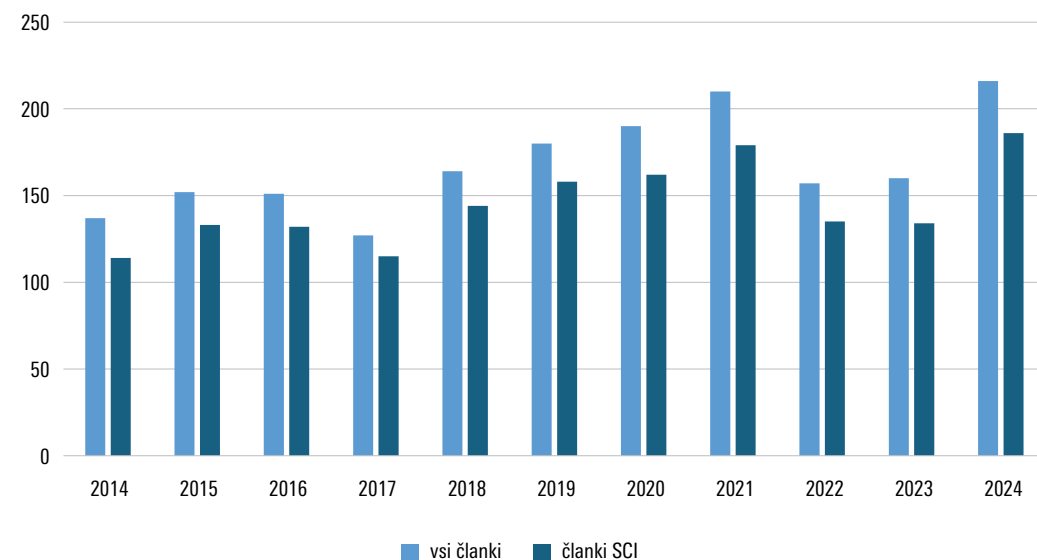
PUBLICATIONS AND CITATION  
OF WORKS

In 2024, researchers at the UL FFA published 216 scientific articles, representing a 35% increase compared to 2023. Of these, 186 were published in scientific journals with Science Citation Index Impact Factor (SCI-IF), marking a 39% increase from the previous year. Among the impact factor publications, 158 were original research articles (of which 60% were classified as high-quality achievements – category A'), 24 were review articles, and 4 were short scientific communications. A record 24 publications from 2024 were classified as exceptional achievements (category A'') – the highest number so far. In 2024, publications by UL FFA researchers received a total of 8,305 net citations, maintaining the same level as in the previous year.

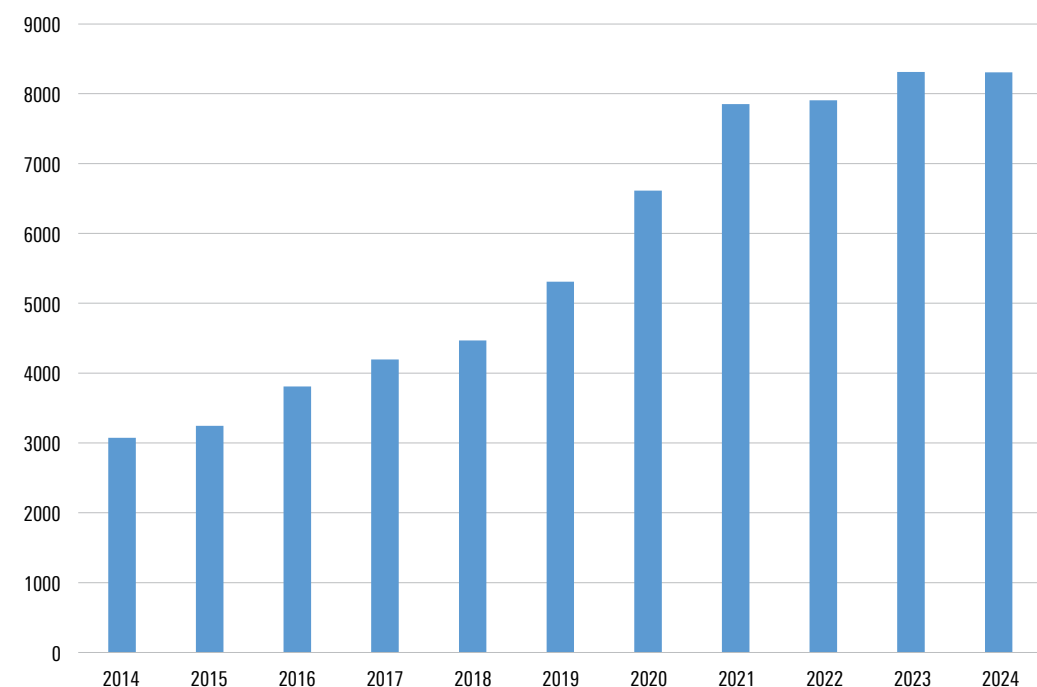
The accompanying table illustrates the sources of research funding and the ratio of scientific publications per FTE, financed from ARIS and EU sources. The upward trend observed in recent years continues. The research productivity indicator, representing the number of scientific publications per total FTE, reached 2.4 articles per FTE in 2024, which is significantly higher than in the previous two years. Due to increased funding, however, the indicator of net citations per FTE was slightly lower than in previous years.

Razmerje znanstvenih člankov in citatov na celokupni FTE raziskovalcev, ki so financirani iz virov ARIS (programi in projekti) in EU ter ARIS (mladi raziskovalci) za obdobje zadnjih 10 let / Ratio between research articles and citations and the total FTE of researchers financed by ARIS (programmes and projects) and EU and ARIS (young researchers) sources for the period of the last 10 years

|      | Sredstva za raziskovalce (FTE) /<br>Founds for researchers (FTE) |     |      |                   | Število vseh<br>znanstvenih<br>člankov na<br>FTE / Number<br>of all research<br>publications FTE | Število vseh<br>znanstvenih<br>člankov z IF na<br>FTE / Number<br>of IF research<br>publications per FTE | Število čistih<br>citatov/FTE /<br>Number of pure<br>citations per FTE |
|------|------------------------------------------------------------------|-----|------|-------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
|      | ARIS /<br>Projects and<br>programmes                             | EU  | MR   | Skupaj /<br>Total |                                                                                                  |                                                                                                          |                                                                        |
| 2014 | 19,8                                                             | 8,2 | 16,8 | 44,8              | 3,1                                                                                              | 2,5                                                                                                      | 69                                                                     |
| 2015 | 19,1                                                             | 5,5 | 13,8 | 38,4              | 4,0                                                                                              | 3,5                                                                                                      | 85                                                                     |
| 2016 | 23,2                                                             | 2,2 | 16,8 | 42,3              | 3,6                                                                                              | 3,1                                                                                                      | 90                                                                     |
| 2017 | 21,5                                                             | 1,0 | 15,1 | 37,6              | 3,4                                                                                              | 3,1                                                                                                      | 112                                                                    |
| 2018 | 24,3                                                             | 2,3 | 16,6 | 43,2              | 3,8                                                                                              | 3,3                                                                                                      | 103                                                                    |
| 2019 | 26,2                                                             | 2,0 | 17,3 | 45,5              | 4,0                                                                                              | 3,5                                                                                                      | 117                                                                    |
| 2020 | 32,3                                                             | 2,5 | 19,7 | 54,5              | 3,5                                                                                              | 3,0                                                                                                      | 121                                                                    |
| 2021 | 33,6                                                             | 2,5 | 20,5 | 56,6              | 3,7                                                                                              | 3,2                                                                                                      | 139                                                                    |
| 2022 | 35,6                                                             | 3,2 | 21,8 | 60,6              | 2,6                                                                                              | 2,2                                                                                                      | 131                                                                    |
| 2022 | 40,7                                                             | 5,0 | 23,1 | 68,8              | 2,3                                                                                              | 1,9                                                                                                      | 121                                                                    |
| 2023 | 47,5                                                             | 5,2 | 23,8 | 76,5              | 2,8                                                                                              | 2,4                                                                                                      | 109                                                                    |



Število znanstvenih objav UL FFA zadnjih 10 let / Number of scientific publications by UL FFA in the past 10 years



Število čistih citatov znanstvenih objav UL FFA v zadnjih 10 letih (Scopus/WoS, vir Sicris) / Number of citations of UL FFA scientific publications in the last 10 years (Scopus/WoS, Source: Sicris)

## RAZISKOVALNA DEJAVNOST NA UL FFA

Raziskovalno delo na UL FFA je potekalo pod okriljem šestih programskih skupin ter v okviru številnih projektov. V letu 2024 so bili nacionalni raziskovalni programi financirani v obsegu 15,2 FTE (brez sredstev za MR-je). Na UL FFA je v letu 2024 potekalo 40 raziskovalnih projektov, financiranih s strani ARIS-a v skupnem letnem obsegu 26,75 FTE. Od tega je bilo 30 temeljnih raziskovalnih projektov, 6 aplikativnih raziskovalnih projektov, 1 poddoktorski raziskovalni projekt in 3 raziskovalni projekti iz drugih raziskovalnih agencij v EU (evropski raziskovalni projekti – tip N). V letu 2024 se je zaključilo 8 raziskovalnih projektov, medtem ko so trije začeli z izvajanjem.

Izven razpisov ARIS smo izvajali 7 mednarodnih evropskih projektov iz okvirnega programa Evropske unije za raziskave in inovacije (Obzorje Evropa), 7 projektov oziroma akcij COST (ang. European CO-operation in Science and Technology) in 3 projekte sklada CELSA (ang. Central Europe Leuven Strategic Alliance). Poleg tega smo pridobili tudi večje število razvojno-raziskovalnih projektov z gospodarstvom.

V okviru financiranja raziskovalnih programov je UL FFA v letu 2024 pridobila 7 novih mladih raziskovalcev, kar še nadgrajuje stopnjo usposabljanja novih znanstvenikov, značilno za raven zadnjih let: 2023 (6 novih MR-jev), 2022 (5 novih MR-jev), 2021 (6 novih MR-jev), 2020 (6 novih MR-jev) in 2019 (5 novih MR-jev).

## RESEARCH ACTIVITIES AT UL FFA

The Faculty carried out research under six research programme groups and numerous individual projects. In 2024, national research programmes were funded in the total scope of 15.2 FTEs (excluding funding for young researchers). At UL FFA, 40 research projects funded by the ARIS were in progress, with a total annual volume of 26.7 FTEs. Of these, 30 were basic research projects, 6 applied research projects, 1 postdoctoral research project, and 3 research projects cofunded by other EU research agencies (European research projects – type N). During 2024, 8 research projects were completed, while 3 new ones were launched.

Beyond the ARIS calls, UL FFA participated in 7 international European projects under the EU Framework Programme for Research and Innovation – Horizon Europe, 7 COST projects or actions (European Cooperation in Science and Technology), and 3 projects under the CELSA network (Central Europe Leuven Strategic Alliance). In addition, the faculty obtained a significant number of research and development projects in collaboration with the industry.

As part of the national research programme funding scheme, UL FFA recruited 7 new young researchers in 2024, and so maintains the level of training of new scientists from this title, typical of the level of recent years: 2023 (6 new YRs), 2022 (5 new YRs), 2021 (6 new YRs), 2020 (6 new YRs) and 2019 (5 new YRs).

NACIONALNI RAZISKOVALNI PROGRAMI  
IN PROJEKTI ARIS

RAZISKOVALNI PROGRAMI

**Farmacevtska tehnologija: od dostavnih sistemov učinkovin do terapijskih izidov zdravil pri otrocih in starostnikih P1-0189**

Pod vodstvom prof. dr. Mitje Kosa združuje raziskovalce Katedre za biofarmacijo in farmakokinetiko, Katedre za farmacevtsko tehnologijo in Katedre za socialno farmacijo. Program od leta 2024 deluje pod novim imenom: **Farmacevtska tehnologija in farmakoterapija: Trajnost za prihodnost.**

Raziskovalni program združuje okoljske, socialne in gospodarske vidike trajnosti pri razvoju ter uporabi zdravil. V ospredje postavlja uvajanje trajnostnih praks, kot so racionalna raba virov in inovativne tehnologije za zmanjšanje ekološkega odtisa. Hkrati daje velik poudarek zagotavljanju varne in učinkovite uporabe zdravil, s čimer krepi družbeno odgovornost in spodbuja pravičen dostop do terapij. Program zajema osem temeljnih ciljev, ki med drugim vključujejo razvoj okolju in bolniku prijaznih farmacevtskih oblik, naprednih dostavnih sistemov (npr. nano- in biološko usmerjenih) ter orodij za natančno odmerjanje. V farmakoterapiji se osredotoča na individualiziran pristop, kjer populacijski farmakokinetični modeli omogočajo varnejše, učinkovitejše zdravljenje ter zmanjšanje tveganja za neželene učinke. Ključno pri tem je tudi aktivno vključevanje bolnika, ki z večjo zdravstveno pismenostjo in jasnimi informacijami bolje sodeluje pri zdravljenju. Družbeno in okoljsko dimenzijo trajnosti program krepi z raziskavami o ostankih zdravil v okolju. To vključuje razvoj občutljivih analitskih metod in naprednih oksidacijskih procesov, ki zmanjšujejo onesnaženje ter spodbujajo odgovorno ravnanje vseh deležnikov v verigi razvoje in uporabe zdravil.

NATIONAL RESEARCH PROGRAMMES  
AND ARIS PROJECTS

RESEARCH PROGRAMMES

**Pharmaceutical Technology: from delivery systems for active ingredients to drugs' therapeutic results in children and older people P1-0189**

Under the leadership of professor Mitja Kos, the researchers from the Department of Biopharmaceutics and Pharmacokinetics, the Department of Pharmaceutical Technology, and the Department of Social Pharmacy are assembled. Since 2024, the program has a new name: **Pharmaceutical Technology and Pharmacotherapy: Sustainability for the Future.**

The research program integrates environmental, social, and economic aspects of sustainability in the development and use of medicines. It emphasizes the implementation of sustainable practices, such as rational resource use and innovative technologies to reduce ecological impact. At the same time, it places strong focus on ensuring the safe and effective use of medicines, by enhancing social responsibility and promoting equitable access to therapies. The program has eight core objectives, including the development of environmentally and patient-friendly pharmaceutical forms, advanced drug delivery systems (e.g., nano- and biologically targeted), and tools for precise dosing. In pharmacotherapy, it emphasizes an individualized approach, where population pharmacokinetic models enable safer and more effective treatment. A key element is the involvement of patients to improve their health literacy and participation in their own treatment. The program boosts the social and environmental dimension of sustainability through research on pharmaceutical residues in the environment. This includes the development of sensitive analytical methods and advanced oxidation processes that reduce pollution and promote responsible practices among all stakeholders across the drug use and development.

**Farmacevtska kemija: načrtovanje, sinteza in vrednotenje učinkovin P1-0208**

Pod vodstvom prof. dr. Stanislava Gobca združuje raziskovalce Katedre za farmacevtsko kemijo, Katedre za klinično biokemijo in Katedre za farmacevtsko biologijo.

Dolgoročni cilj raziskovalnega programa je odkritje novih biološko aktivnih majhnih molekul z možnostjo razvoja v učinkovine za uporabo na pomembnih terapevtskih področjih. Cilj bo dosežen z uporabo kombinacije različnih farmacevtsko-kemijskih pristopov. V tem obdobju se raziskovalni program osredotoča na odkrivanje, racionalno načrtovanje, sintezo in biološko vrednotenje molekul z delovanjem na validirane tarče. Ta postopek bo ustvaril nove protinevrodegenerativne, protimikrobne, imunomodulatorne in protitumorne spojine, ki so zelo pomembne za javno zdravje. Raziskovalni program obravnava različne tarče učinkovin, ki sodelujejo pri transmembranski in znotrajcelični signalizaciji, kot so npr. bakterijski in človeški encimi, membranski, znotrajcelični in jedrni receptorji ter ionski kanali. Uporabljene so sodobne strategije farmacevtske kemije, vključno z biomimetičnim pristopom in načrtovanjem, ki išče navdih v naravnih produktih, načrtovanju učinkovin na osnovi fragmentov, pristopih za doseganje selektivnosti in učinkovinah s podobnimi lastnostmi. Raziskovalci bodo oblikovali tudi spojine, ki lahko hkrati modulirajo dve ali več tarč hkrati. Glavna področja raziskav vključujejo razvoj novih učinkovin, ki delujejo na (i) nevrodegeneracijo z zaviranjem holin-esteraz, monoamin-oksidad in kinaz ter modulacijo monoaminergičnih receptorjev in oksidativnih tarč, (ii) na več učinkovin odporne bakterije in koronavirus z zaviranjem DNA giraze, topoizomeraze IV, MurA, D-Ala-D-Ala ligaze B, penicilin-vezočih proteinov, proteasoma, reduktaze enoil acil prenašalnega proteina (InhA) in cisteinskih proteaz, (iii) imunski sistem z modulacijo Tollu podobnih receptorjev in galektinov, zaviranjem imunoproteasoma in z O-vezane β-N-acetilglukozamin transferaze (OGT), (iv) rakava stanja z zavira-

**Pharmaceutical Chemistry: Planning, synthesis and evaluation of active ingredients P1-0208**

Under the leadership of professor Stanislav Gobec, the programme brings together researchers from the Department of Pharmaceutical Chemistry, the Department of Clinical Biochemistry and the Department of Pharmaceutical Biology.

The long-term aim of the research programme is to discover new biologically active small molecules with the possibility of development into active substances for use in important therapeutic areas. The goal will be achieved by using a combination of different pharmaceutical and chemical approaches. Currently, the research programme focuses on the discovery, rational design, synthesis and biological evaluation of molecules by acting on validated targets. This process will generate new anti-neurodegenerative, antimicrobial, immunomodulatory and antitumor compounds that are of great importance to public health. The research programme deals with various targets of active substances that participate in transmembrane and intracellular signalling, such as bacterial and human enzymes, membrane, intracellular and nuclear receptors and ion channels. Modern pharmaceutical chemistry strategies are used, including a biomimetic approach and design inspired by natural products, fragment-based drug design, approaches to achieve selectivity, and drug-like properties. Researchers will also design compounds that can simultaneously modulate two or more targets simultaneously. The main areas of research include the development of new agents that act on (i) neurodegeneration by inhibiting choline-esterases, monoamine-oxidases and kinases and modulating monoaminergic receptors and oxidative targets, (ii) multi-agent resistant bacteria and coronaviruses by inhibiting DNA gyrase, topoisomerase IV, MurA, D-Ala-D-Ala ligase B, penicillin-binding proteins, proteasome, enoyl acyl transfer protein (InhA) reductase and cysteine proteases, (iii) the immune system by modulating Toll-like receptors and galectins, inhibiting the immunoproteasome and by

njem hERG, kalijevih napetostnih kanalov (Kv1.3), beljakovine toplotnega šoka 90 (Hsp90), DNA topoizomeraze II in proteasoma ter modulacijo prostaglandinskega E2 receptorja 4 (EP4). Pomemben del raziskovalnega programa bodo tudi toksikološki vidiki pri procesu odkrivanja učinkovin, vključno z določanjem (i) PADMET lastnosti novih spojin, (ii) mehanizma toksičnosti endokrinih motilcev, (iii) vpliva presnove na biološko aktivnost in toksičnost in (iv) učinkov antioksidantov na oksidacijsko stabilnost spojin.

**Napredna imunološka zdravila in celični pristopi v farmaciji P1-0420**

Pod vodstvom prof. dr. Žige Jakopina združuje raziskovalce Katedre za farmacevtsko kemijo, Katedre za farmacevtsko biologijo, Katedre za klinično biokemijo in Katedre za farmacevtsko tehnologijo.

Cilj programa je razvoj varnih in učinkovitih cepiv proti nalezljivim boleznim, razvoj zdravil za imunoterapijo in celično terapijo rakavih obolenj ter imunoterapijo alergij. Program temelji na treh osnovnih platformah: (i) Razvoj inovativnih cepiv; (ii) Imunoterapija in celična terapija kot napredna pristopa za zdravljenje raka in alergij ter (iii) Imunotoksikološko profiliranje. V platformi razvoja inovativnih cepiv (klasična cepiva, cepiva nove generacije, tumorska cepiva, cepiva za imunoterapijo alergij) so zajete vse faze razvoja cepiv: ekspresija proteinov, DNA ali RNA ter njihova izolacija in čiščenje, razvoj sintetičnih adjuvantov, razvoj formulacij oziroma naprednih dostavnih sistemov ter označevanje z ligandi za ciljano dostavo, imunofarmakološko vrednotenje *in vitro* ter vrednotenje učinkovitosti in varnosti cepiv *in vivo*. V drugi platformi – Imunoterapija in celična terapija

O-linked  $\beta$ -N-acetylglucosamine transferases (OGTs), (iv) cancer states by inhibiting hERG, potassium voltage-gated channels (Kv1.3), heat shock protein 90 (Hsp90), DNA topoisomerase II, and the proteasome and modulating the prostaglandin E2 receptor 4 (EP4). An important part of the research programme will also be toxicological aspects in the process of discovery of active substances, including the determination of (i) PADMET properties of new compounds, (ii) the mechanism of toxicity of endocrine disruptors, (iii) the influence of metabolism on biological activity and toxicity, and (iv) the effects of antioxidants on oxidative stability of compounds.

**Advanced immunological medicines and cellular approaches in pharmacy P1-0420**

Under the leadership of professor Žiga Jakopin the programme brings together researchers from the Department of Pharmaceutical Chemistry, the Department of Pharmaceutical Biology, the Department of Clinical Biochemistry and the Department of Pharmaceutical Technology.

The aim of the research programme is the development of safe and effective vaccines against infectious diseases, the development of drugs for immunotherapy and cell therapy of cancer diseases, and immunotherapy of allergies. The programme is based on three basic platforms: (i) Development of innovative vaccines; (ii) Immunotherapy and cell therapy as advanced approaches for the treatment of cancer and allergies and (iii) Immunotoxicological profiling. The innovative vaccine development platform (classic vaccines, new generation vaccines, tumour vaccines, allergy immunotherapy vaccines) covers all phases of vaccine development: expression of proteins, DNA or RNA and their isolation and purification, development of synthetic adjuvants, development of formulations or advanced delivery systems and labelling with ligands for

ja kot napredna pristopa za zdravljenje raka in alergij – so zajeta področja razvoja inovativnih agonistov prirojene imunosti za zdravljenje raka, uporaba mezenhimskih matičnih celic (MSC) kot dostavni sistem za ciljanje rakavih tkiv, proučevanje novih sinergističnih kombinacij ZU s protirakavim delovanjem in uporaba imunoterapije ter imunosupresivnega delovanja MSC pri zdravljenju alergij. V tretjem sklopu je program usmerjen v proučevanje imunotoksičnih učinkov *in vitro* ter vrednotenje imunogenosti.

**Klinična biokemija: geni, hormonske in osebne spremembe pri metabolnih motnjah P3-0298**

Pod vodstvom prof. dr. Andreja Janeža programska skupina deluje na UKC Ljubljana ter na UL FFA, Katedra za klinično biokemijo, koordinatrica na UL FFA je prof. dr. Janja Marc.

Program je zasnovan na lastnih dolgoletnih izkušnjah in dosežkih na področju kliničnih in laboratorijskih raziskav, ki proučujejo kronične presnovne bolezni, osteoporozo, sladkorno bolezen in sindrom policističnih ovarijev. Osteoporozo proučujejo na ravni lokalnih regulatorjev kostne premene. Cilj raziskave je, da osvetlijo pomen lokalnih regulatorjev za etiopatogenezo osteoporoze. Predpostavljajo, da bodo identificirali serumski označevalec, ki bo v korelaciji z dogajanjem v samem kostnem tkivu. Načrtujejo tudi raziskavo vpliva zarodnih mutacij nekaterih odgovornih genov na zdravljenje (farmakogenetika) in na zgodnje odkrivanje oseb s povečanim tveganjem za osteoporozo. Na področju sladkorne bolezni raziskujejo pojav rezistence celic v perifernih tkivih na inzulin. Pri bolnicah s sindromom policističnih ovarijev jih zanimajo spremembe

targeted delivery, immunopharmacological evaluation *in vitro*, and evaluation of vaccine efficacy and safety *in vivo*. In the second platform, immunotherapy and cell therapy as advanced approaches for the treatment of cancer and allergies, the areas of development of innovative agonists of innate immunity for the treatment of cancer, the use of mesenchymal stem cells (MSC) as a delivery system for targeting cancer tissues, the study of new synergistic combinations of ZU with anticancer activity and the use of immunotherapy and the immunosuppressive activity of MSCs in the treatment of allergies. In the third part, the programme focuses on the study of immunotoxic effects *in vitro* and the evaluation of immunogenicity.

**Clinical biochemistry: Genes, hormonal and personality changes in metabolic disorders P3-0298**

Under the leadership of professor Andrej Janež from University Medical Centre Ljubljana, the programme group works at the University of Ljubljana, Medical Faculty and Faculty of Pharmacy, Department of Clinical Biochemistry, the coordinator at UL FFA is professor Janja Marc.

The research programme is based on a long-term experience and achievements in the field of clinical and laboratory research that studies chronic metabolic diseases, osteoporosis, diabetes and polycystic ovary syndrome. Osteoporosis is studied at the level of local regulators of bone turnover. The aim of the studies is to shed light on the importance of local regulators for the etiopathogenesis of osteoporosis. The core assumption is the programme will identify a serum marker that will correlate with the events in the bone tissue itself. The teams are also planning to study the impact of germline mutations of some of the responsible genes on treatment (pharmacogenetics) and on the early detection of people with increased risk for osteoporosis. In the field of diabetes, the teams are investi-

mehanizma prenosa glukoze v adipocyte po zdravljenju z metforminom ali rosiglitazonom. Predpostavlja se, da bodo pripomogli k razumevanju etiopatogeneze sindroma policističnega ovarija, ki sloni na inzulinski rezistenci.

Sistemske avtoimunske bolezni P3-0314

Pod vodstvom doc. dr. Katje Lakota programska skupina deluje na UKC Ljubljana ter na UL FFA, Katedra za klinično biokemijo, koordinator na UL FFA je prof. dr. Borut Božič.

Avtoimunost, vnetje, ateroskleroza in bolezni ožilja predstavljajo prioriteto v medicini razvitih držav. Kljub temu pa so povezave med znanstvenimi področji premalo poznane in še nejasne. Program predstavlja nadaljevanje raziskav programske skupine z močnim poudarkom na 4 P-jih v medicini (preventiva, predikcija, personalizacija in participatorna medicina), vključitev bioinformatike in podatkovnih baz (kot je Register bolnikov, ki jemljejo biološka zdravila) in razvijanje in uporaba novih 'state-of-the-art' sistemov, kot so: a) mikroskopija na atomsko silo za študij patogenih protiteles, b) epigenetika za določanje okoljne regulacije celičnega vnetnega transkriptoma, c) raziskave na nanocevkah iz titanovega dioksida za potencialno uporabo v implantacijskih napravah, d) fagna knjižnica in veliki lipidni vezikli za študij interakcij med antigenom in protitelesi e) celični modeli celjenja ran s prasko in antibakterijski testi za povečanje razumevanja, kako deluje akutno fazni protein serumski amiloid A (SAA) lokalno.

gating the phenomenon of cell resistance in peripheral tissues to insulin. In patients with polycystic ovary syndrome, the teams are interested in changes in the mechanism of glucose transfer to adipocytes after treatment with metformin or rosiglitazone. They are thought to be of help in understanding the etiopathogenesis of polycystic ovary syndrome based on insulin resistance.

Systemic autoimmune diseases P3-0314

Under the leadership of assistant professor Katja Lakota, the programme group works at University Medical Centre Ljubljana (dr. Peter Držaj Hospital) and Department of Clinical Biochemistry at UL FFA, the coordinator at UL FFA is professor Borut Božič.

Autoimmunity, inflammation, atherosclerosis and vascular diseases are a priority in the medicine of developed countries. Nevertheless, the connections between scientific fields are not well known and are still unclear. The programme represents the continuation of the programme group's research with a strong emphasis on the 4 P's in medicine (prevention, prediction, personalization and participatory medicine), the inclusion of bioinformatics and databases (such as the Register of patients taking biological drugs) and the development and use of new state of the art systems such as: a) atomic force microscopy for the study of pathogenic antibodies, b) epigenetics for determining environmental regulation of the cellular inflammatory transcriptome, c) research on titanium dioxide nanotubes for potential use in implantable devices, d) phage library and large lipid vesicles to study antigen-antibody interactions e) cellular models of scratch wound healing and antibacterial assays to increase understanding of how the acute phase protein serum amyloid A (SAA) acts locally.

Farmacevtska biotehnologija: znanje za zdravje P4-0127

Pod vodstvom prof. dr. Janka Kosa združuje raziskovalce Katedre za farmacevtsko biologijo in Katedre za klinično biokemijo na UL FFA ter Odseka za biotehnologijo Instituta Jožef Stefan.

Delo programske skupine se vključuje v sodobne znanstvene trende z namenom povečanja vedenja o življenju, ohranjanja zdravja ljudi in čistega okolja. Poleg poznavanja osnovnih mehanizmov delovanja celic so izpostavljene predvsem študije mehanizmov nastanka in napredovanja določenih bolezni, saj s poznavanjem glavnih dejavnikov v bolezenskih procesih lahko identificirajo nove tarče za uspešnejšo diagnozo in terapijo. Dosedanji dosežki članov programske skupine na tem področju, ki se odražajo v objavah v številnih publikacijah in citiranosti, kažejo, da je doprinos novih znanj k svetovni zakladnici znanja pomemben. Pomembno je tudi delo skupine pri iskanju novih možnih učinkovin in diagnostičnih pristopov ter pri razvoju analitskih in biotehnoloških metod. Skupina pri svojem raziskovalnem delu uporablja in uvaja najsodobnejše znanstvene tehnike in metodologije. Povezanost skupine z drugimi raziskovalci v Sloveniji in mednarodnem prostoru zagotavlja pretok znanja in dobre rezultate tudi v prihodnje.

Pharmaceutical Biotechnology: knowledge for health P4-0127

Under the leadership of professor Janko Kos, the programme brings together the researchers of the Chair of Pharmaceutical Biology, the Chairs for Clinical Biochemistry and the Department of Biotechnology of the Jožef Stefan Institute.

The work of the programme group is involved in modern scientific trends with a view to increasing knowledge of life behaviour, preserving human health and clean environment. In addition to knowledge of the underlying mechanisms of cell function, studies of the mechanisms of formation and progression of certain diseases are mainly highlighted, as knowledge of the main factors in the disease processes can determine new targets for more successful diagnosis and therapy. The achievements of programme group members in their area of expertise are reflected in articles in numerous publications and citations, making evident the relevance of their contribution of new knowledge to the global treasure trove of knowledge. The group's work in finding new possible active substances and diagnostic approaches and in the development of analytical and biotechnological methods is also significant. The team uses and introduces state-of-the-art scientific techniques and methodologies in its research work. The group's association with other researchers in Slovenia and connections in the international arena ensures the transfer of knowledge and good results in the future.

Sodelovanje v drugih raziskovalnih programih v manjšem obsegu

Zaposleni na UL FFA so v letu 2024 sodelovali tudi v treh raziskovalnih programih, ki se izvajajo na drugih inštitucijah, in sicer:

- **Farmakologija in farmakogenomika (P3-0067);** raziskovalni program poteka na Univerzi v Ljubljani, Medicinski fakulteti ter na Univerzi v Mariboru, Medicinski fakulteti, vodja je prof. dr. Mojca Kržan,
- **Celostna obravnava alergijskih bolezni in astme v Sloveniji: od epidemiologije do geneti-ke (P3-0360);** raziskovalni program poteka na Univerzitetni kliniki za pljučne bolezni in alergijo Golnik ter na Univerzi v Mariboru, Medicinski fakulteti, vodja je prof. dr. Mitja Košnik,
- **Celična fiziologija (P3-0310);** raziskovalni program poteka na Univerzi v Ljubljani, Medicinski fakulteti ter na podjetju CELICA, biomedicinski center, d.o.o., vodja je prof. dr. Robert Zorec

Zagonski raziskovalni programi UL

Na UL FFA je v letu 2024 deloval en zagonski raziskovalni program UL v letnem obsegu 2,5 FTE (nosilec doc. dr. Andrej Emanuel Cotman) z naslovom Napredna sinteza za farmacijo in medicino. Cilj tega programa je povezati kiralno organokovinsko katalizo s trenutnimi sintezni izzivi v farmacevtski kemiji in tehnologiji. V okviru programa se usposablajo štirje doktorski študentje.

Konec leta 2024 smo pridobili še dva nova zagonska raziskovalna programa, ki bosta z raziskavami pričela v letu 2025.

Participation in other research programmes on a smaller scale

In 2023, UL FFA employees also participated in three research programmes carried out at other institutions, namely:

- Pharmacology and pharmacogenomics (P3-0067); the research programme takes place at the University of Ljubljana, Faculty of Medicine and at the University of Maribor, Faculty of Medicine, the programme lead being professor Mojca Kržan
- Comprehensive treatment of allergic diseases and asthma in Slovenia: from epidemiology to genetics (P3-0360); the research programme takes place at the Golnik University Clinic for Lung Diseases and Allergy and at the University of Maribor, Faculty of Medicine, the programme leader being professor Mitja Košnik
- Cell physiology (P3-0310); the research programme takes place at the University of Ljubljana, Faculty of Medicine and at the company CELICA, biomedicinski center, d.o.o., the programme leader being professor Robert Zorec.

UL Start-Up Research Programs

In 2024 UL FFA hosted one UL startup research program with an annual scope of 2.5 FTE, led by assistant professor Andrej Emanuel Cotman, entitled: Advanced Synthesis for Pharmacy and Medicine. The aim of this program is to integrate chiral organometallic catalysis with current synthetic challenges in pharmaceutical chemistry and technology. As part of the program, four doctoral students are being trained.

At the end of 2024, two new startup research programs were approved, which are scheduled to commence research activities in 2025.

Veliki interdisciplinarni projekti UL

UL FFA je v letu 2024 pridobila začetna sredstva za vzpostavitev enega velikega interdisciplinarnega projekta, pri katerem bo UL FFA vodilna članica, ter še enega kot sodelujoča članica:

- **Translacijske raziskave večtarčnih spojin za zdravljenje nevrodegenerativnih in duševnih bolezni.** Vodja projekta je prof. dr. Stanislav Gobec (UL FFA). Pri projektu sodelujejo članice UL: FFA, FKKT, VF, MF in FDV. Cilj projekta je vzpostavitev mreže partnerjev z UL in zunanjih institucij za usklajen razvoj večtarčnih učinkovin za zdravljenje nevrodegenerativnih in duševnih bolezni (Alzheimerjeva in Parkinsonova bolezen, depresija ter druge sorodne bolezni).
- **Nanostruktrom.** Nosilna članica je UL ZF. Pri projektu sodelujejo članice UL: ZF, MF, VF, BF, PF, FFA, FKKT, FGG, FE in AG. Strateški področji projekta sta zdravje-medicina (translacijska medicina, aktivno in zdravo staranje, biofarmacevtika, naravna zdravila in kozmetika) in mreže za prehod v krožno gospodarstvo (zelene tehnologije in procesi). Projekt je sestavljen iz šestih delovnih segmentov: nanostruktrom za »eno zdravje«, nanostruktrom za klinične aplikacije, nanostruktrom za interakcije z aktivnimi snovmi in površinami, nanoalgosomi, nanostruktrom za kmetovanje ter izobraževanje STEAM.

Large Interdisciplinary Projects at UL

In 2024, UL FFA obtained initial funding for the establishment of one large interdisciplinary project, in which UL FFA will be the lead member, and another as a participating member:

- **Translational Research of Multitarget Compounds for the Treatment of Neurodegenerative and Mental Disorders.** Project lead: Professor Stanislav Gobec (UL FFA). Participating UL members: FFA, FKKT, VF, MF, and FDV. The project aims to establish a network of partners within UL and external institutions for the coordinated development of multitarget compounds for treating neurodegenerative and mental disorders (Alzheimer's and Parkinson's diseases, depression, and related conditions).
- **Nanostructures.** Leading UL member: UL ZF. Participating UL members: ZF, MF, VF, BF, PF, FFA, FKKT, FGG, FE, and AG. The project focuses on two strategic areas: health and medicine (translational medicine, active and healthy aging, biopharmaceutics, natural medicines, and cosmetics) and networks for the transition to a circular economy (green technologies and processes). It consists of six work segments: nanostructures for "One Health," nanostructures for clinical applications, nanostructures for interactions with active substances and surfaces, nanoalgosomes, nanostructures for agriculture, and STEAM education.

RAZISKOVALNI PROJEKTI ARIS

UL FFA je v letu 2024 pričela z izvajanjem treh novih raziskovalnih projektov, financiranih s strani ARIS-a, osem raziskovalnih projektov pa se je zaključilo.

Novo pridobljeni temeljni raziskovalni projekti

- J1-50038 – Nove terapije Ewingovega sarkoma osnovane na zaviralcih Hsp90 (nosilec: prof. dr. Tihomir Tomašič)  
Projekt razvija nove tarčne terapije za Ewingov sarkom z uporabo inovativnih zaviralcev Hsp90. Z njimi želijo doseči razgradnjo onkogenih proteinov in povečati selektivno toksičnost za tumorske celice. Cilj je izboljšati učinkovitost in zmanjšati neželene učinke zdravljenja z uporabo naprednih molekularnih pristopov ter pametne dostave zdravil.

Novo pridobljeni raziskovalni projekti v sodelovanju z drugimi raziskovalnimi agencijami v EU (tip N)

- N1-0363 – Nadomestki bisfenola A: zdravstvena tveganja za endokrini in kardiovaskularni sistem – BPA-subRisk (nosilka: prof. dr. Marija Sollner Dolenc)  
Projekt BPAsubRisk ocenjuje varnost nadomestkov bisfenola A (BPA), ki se uporabljajo kot alternative BPA v plastičnih izdelkih, premazih konzerv in termičnem papirju. Raziskuje tveganja ob njihovi izpostavitvi za endokrini in kardiovaskularni sistem z *in silico*, *in vitro* in *in vivo* metodami. Cilj je izboljšati regulacijo teh kemikalij in zaščititi zdravje ljudi ter okolje.

ARIS-FUNDED RESEARCH PROJECTS

In 2024, UL FFA initiated three new research projects funded by ARIS, while eight research projects were completed.

Newly Awarded Basic Research Projects

- J1-50038 – New Therapies for Ewing Sarcoma Based on Hsp90 Inhibitors (Project Lead: Professor Tihomir Tomašič)  
This project develops novel targeted therapies for Ewing sarcoma using innovative Hsp90 inhibitors. The aim is to induce the degradation of oncogenic proteins and increase selective toxicity against tumour cells. The goal is to enhance treatment efficacy and reduce adverse effects through advanced molecular approaches and smart drug delivery strategies.

Newly Awarded Research Projects in Collaboration with Other EU Research Agencies (Type N)

- N1-0363 – Bisphenol A substitutes: health risks for the endocrine and cardiovascular systems – BPAsubRisk (Project lead: Professor Marija Sollner Dolenc)  
The BPAsubRisk project assesses the safety of bisphenol A (BPA) substitutes used as alternatives in plastic products, can coatings, and thermal paper. It investigates exposure-related risks to the endocrine and cardiovascular systems using *in silico*, *in vitro*, and *in vivo* methods. The goal is to improve regulation of these chemicals and protect human health and the environment.

- N1-0331 – Dvojni udarec NF-KB signalni poti: razvoj razgrajevalcev proteinov TAK1 in IKKβ za zdravljenje z vnetjem povezanih bolezni (nosilec: izr. prof. dr. Izidor Sosič)  
Cilj projekta je razvoj prvih heterobifunkcionalnih molekul (angl. proteolysis targeting chimeras, PROTACs) za razgradnjo TAK1 in IKKβ kinaz, ki imata bistveno vlogo pri vnetnih procesih. Slednje vpliva na sprožitev množice patofizioloških stanj pri ljudeh, zaradi česar je razvoj razgrajevalcev obeh proteinov smiselna in znanstveno podprta strategija na poti do novih zdravil, ki delujejo protivnetno.

BILATERALNI PROJEKTI ARIS

UL FFA je imela v letu 2024 vzpostavljenih 18 bilateralnih projektov ARIS, od tega 6 novih, pri katerih sodeluje z akademskimi institucijami v naslednjih državah: Avstrija, Črna Gora, Francija, Hrvaška, Japonska, Nemčija, Srbija, Turčija in ZDA.

- N1-0331 – A double whammy for the NF-κB signalling pathway: development of TAK1 and IKKβ degraders against inflammation-driven diseases (Project lead: Associate professor Izidor Sosič).  
The aim of the project is the development of the first-in-class proteolysis targeting chimeras (PROTACs) for the degradation of TAK1 and IKKβ kinases, which are essential for inflammatory processes. The latter govern a plethora of pathophysiological states in humans, making the development of degraders of these proteins a well-justified approach towards novel anti-inflammatory agents.

ARIS BILATERAL PROJECTS

UL FFA had 18 active bilateral projects (of which 6 were newly awarded) going on in 2024, where we cooperate with academic institutions in the following countries: Austria, Montenegro, France, Croatia, Japan, Germany, Serbia, Turkey, and the USA.

MEDNARODNI RAZISKOVALNI PROJEKTI  
PROGRAM OBZORJE EVROPA

PARC

Projekt Partnerstvo za oceno tveganja kemikalij (PARC: Partnership for the Assessment of Risks from Chemicals) je projekt, ki ga delno sofinancira Evropska unija v okviru zdravstvenega programa Obzorje Evropa 2021–2027. UL FFA je v ta projekt vključena od 2022 pod koordinators- tvom prof. dr. Marije Sollner Dolenc.

REMEDI4ALL

Projekt za Oblikovanje trajnostne evropske inovacijske platforme za podporo uveljavljanja novih terapevtskih in- dikacij učinkovin za vse skupine bolnikov (REMEDI4ALL: Building a sustainable European innovation platform to enhance repurposing of medicines for all) je projekt, ki ga financira Evropska unija v okviru zdravstvenega programa Obzorje Evropa 2021–2027. UL FFA je v ta projekt vklju- čena od 2022 pod koordinatorstvom prof. dr. Roka Dreua in prof. dr. Irene Mlinarič-Raščan.

SIMPATHIC

Projekt za pospešeno odkrivanje že obstoječih zdravil, ki bi jih uporabili za zdravljenje redkih nevroloških, nevro- metaboličnih in nevromišičnih bolezni z ugotavljanjem podobnosti v klinični in molekularni patologiji (SIMPAT- HIC – Accelerating drug repurposing for rare neurolo- gical, neurometabolic and neuromuscular disorders by exploiting SIMilarities in clinical and molecular PATHo- logy) je projekt, ki je financiran v okviru zdravstvenega programa Obzorje Evropa 2021–2027. UL FFA je v ta pro- jekt vključena od julija 2023 pod koordinatorstvom prof. dr. Roka Dreua.

INTERNATIONAL RESEARCH PROJECTS  
HORIZON EUROPE 2021–2027

PARC

The Partnership for the Assessment of Risks from Chem- icals (PARC) is a project partially co-funded by the Euro- pean Union under the Horizon Europe 2021–2027 health programme. UL FFA has been involved in this project since 2022, under the coordination of professor Marija Sollner Dolenc.

REMEDI4ALL

The REMEDI4ALL project (Building a sustainable European innovation platform to enhance repurposing of medicines for all) is funded by the EU Horizon Europe 2021–2027 health programme. The project aims to create a sustain- able European innovation platform to support the repur- posing of medicines for all patient groups. UL FFA has participated in this project since 2022, coordinated by pro- fessors Rok Dreu and Irena Mlinarič-Raščan.

SIMPATHIC

The SIMPATHIC project (Accelerating drug repurposing for rare neurological, neurometabolic, and neuromuscular dis- orders by exploiting SIMilarities in clinical and molecular PATHology) is funded under Horizon Europe 2021–2027. The project aims to accelerate the identification of existing drugs for the treatment of rare neurological, neurometa- bolic, and neuromuscular diseases. UL FFA has participat- ed in the project since July 2023, under the coordination of professor Rok Dreu.

BREAKthrough

Projekt za Preboj pregrad – Celostni multidisciplinarni pristop za uničevanje Gram-negativnih bakterij z omo- gočanjem prepustnosti zunanje celične membrane za že obstoječe antibiotike. BREAKthrough (Breaking the barrier – An integrated multidisciplinary approach to kill Gram-negative bacteria through existing antibiotics by making their outer membrane permeable) je projekt, ki ga financira Evropska unija v okviru zdravstvenega progra- ma Obzorje Evropa 2021–2027 v povezavi s programom Marie Skłodowska-Curie Actions (MSCA DN) – Doctoral Network. UL FFA je v ta projekt vključena od decembra 2023 pod koordinatorstvom prof. dr. Stanislava Gobca.

EVROPSKA NOČ RAZISKOVALCEV

V okviru programa Obzorje Evropa 2021–2027, pro- gram Marie Skłodowska-Curie Actions (MSCA), je 27. septembra 2024 na UL FFA potekala Evropska noč raz- iskovalcev Humanistika, to si ti! z naslovom Človek, UL. Projekt poteka od leta 2024. Vodilna partnerica projekta je Univerza v Ljubljani, Filozofska fakulteta, poleg nje pa sodeluje še deset fakultet, med njimi tudi UL FFA. Koordi- natorica projekta na UL FFA je izr. prof. dr. Alenka Zvonar Pobirk.

BREAKthrough

The BREAKthrough project (Breaking the barrier – An in- tegrated multidisciplinary approach to kill Gram-negative bacteria through existing antibiotics by making their outer membrane permeable) is funded by the EU Horizon Europe 2021–2027 health programme in conjunction with the Marie Skłodowska-Curie Actions Doctoral Network (MSCA DN). The project focuses on enabling existing antibiotics to effectively target Gram-negative bacteria by permeabiliz- ing their outer membrane. UL FFA has been involved with the project since December 2023, coordinated by profes- sor Stanislav Gobec.

European Researchers’ Night

Under the Horizon Europe 2021–2027 programme, Marie Skłodowska-Curie Actions (MSCA), UL FFA hosted the Eu- ropean Researchers’ Night on 27 September 2024, entitled “*Humanities, That’s You! – Human, AI*”. The project has been running since 2024. The lead partner is the University of Ljubljana, Faculty of Arts, with ten additional faculties participating, including UL FFA. The project coordinator at UL FFA is associate professor Alenka Zvonar Pobirk.

### EATRIS-CONNECT

V okviru programa Obzorje Evropa 2021–2027 projekt *European Infrastructure for Translational Medicine – Digital Transformation (EATRIS-CONNECT)* krepi dolgoročno delovanje evropske raziskovalne infrastrukture EATRIS in spodbuja digitalno preobrazbo infrastrukture na področju personalizirane medicine. Osredotoča se na prehod od tradicionalnega pristopa k paradigmi, ki zajema velike podatke, umetno inteligenco in digitalna orodja. Projekt uvaja EATRIS Digital Hub, spletni portal, ki bo omogočal dostop do preverjenih digitalnih orodij. Vseh 14 nacionalnih vozlišč EATRIS predstavlja jedro projekta EATRIS-CONNECT, saj omogočajo usklajevanje prioritet in krepijo digitalne kompetence infrastrukture. Poleg tega projekt spodbuja čezmejno usklajevanje, iskanje sinergij med ostalimi evropskimi raziskovalnimi infrastrukturami, sodelovanje med akademijo in industrijo ter oblikovanje priporočil za uporabo digitalnih orodij v korist bolnikov in družbe. Posebno pozornost namenja tudi pobudi *Go Green*, ki spodbuja okoljsko ozaveščenost in zmanjšanje ogljičnega odtisa. UL FFA je v projekt vključena od leta 2024 pod koordinatorstvom prof. dr. Irene Mlinarič-Raščan.

### EATRIS-CONNECT

Under the Horizon Europe 2021–2027 programme the EATRIS-CONNECT project (European Infrastructure for Translational Medicine – Digital Transformation) supports long-term operations of the EATRIS European research infrastructure and promotes digital transformation in personalized medicine. It focuses on transitioning from traditional approaches to a paradigm integrating big data, artificial intelligence, and digital tools. The project establishes the EATRIS Digital Hub, an online portal providing access to validated digital tools. The 14 national EATRIS nodes form the core of the project, enabling coordination of priorities and enhancing digital competencies. The project also promotes cross-border coordination, synergy with other European research infrastructures, academia–industry collaboration, and the development of recommendations for using digital tools for the benefit of patients and society. It emphasizes the Go Green initiative, encouraging environmental awareness and reduction of carbon footprint. UL FFA has been involved with the project since 2024, coordinated by professor Irena Mlinarič-Raščan.

### GlyCanDrug

Projekt GlyCanDrug je evropska mreža usposabljanja, financirana v okviru programa Obzorje Evropa 2021–2027 v sklopu razpisa Marie Skłodowska-Curie Doctoral Networks. Združuje vrhunske znanstvenike in strokovnjake iz devetih akademskih institucij (osem v EU in ena v ZDA) ter šestih malih in srednje velikih podjetij, ki nudijo dopolnjujoča znanja in napredna tehnološka orodja na področju glikoznanosti. Glavni cilj konzorcija je oblikovati natančne učinkovine za modulacijo površinskih glikanskih celičnih motivov, povezanih z rakavimi boleznimi. Omenjeni glikani so značilni odtisi številnih vrst raka, njihovo ciljanje pa ima izjemen potencial za razvoj usmerjenih terapij proti zelo heterogenim vrstam raka. Ključen poudarek mreže je na izobraževanju naslednje generacije raziskovalcev: deset doktorandov bo deležnih interdisciplinarnega usposabljanja, ki vključuje vrhunsko tehnologijo, inovativne metode ter praktična znanja s področja glikoznanosti in biomedicine. Raziskovalci, vključeni v GlyCanDrug mrežo, bodo s svojimi raziskavami poizkusili pripraviti molekule, ki bi selektivno zavirale specifične glikoziltransferaze v Golgijevem aparatu in s tem spremenjale sestavo glikanov na površini rakavih celic. Površinski glikani so ključni dejavniki prepoznavanja rakavih celic s celicami imunskega sistema, zato bi s spremembo površinskih glikanov olajšali delovanje imunskega sistema in tako razvili popolnoma nove terapije za zdravljenje raka. UL FFA je v ta projekt vključena od maja 2024 pod koordinatorstvom prof. dr. Marka Anderluha.

### GlyCanDrug

GlyCanDrug is a European training network funded under the Horizon Europe 2021–2027 Marie Skłodowska-Curie Doctoral Networks call. It brings together leading researchers from nine academic institutions (eight in the EU, one in the USA) and six SMEs, providing complementary expertise and advanced technological tools in glycoscience. The main goal is to develop precise compounds targeting cell surface glycan motifs associated with cancer. These glycans serve as fingerprints for many cancer types, therefore targeting them has significant potential for developing targeted therapies. The network places a strong emphasis on training the next generation of researchers: ten PhD students receive interdisciplinary training in cutting-edge technologies, innovative methods, and practical knowledge in glycoscience and biomedicine. Researchers in GlyCanDrug aim to design molecules that selectively inhibit specific glycosyltransferases in the Golgi apparatus, thereby altering glycan composition on cancer cell surfaces. Surface glycans are critical for immune system recognition of cancer cells, therefore modifying them could enhance immune response and support the development of novel cancer therapies. UL FFA has participated with the project since May 2024, coordinated by professor Marko Anderluh.

DRUGI MEDNARODNI PROJEKTI

CELSA

Namen projektov združenja CELSA (ang. Central Europe Leuven Strategic Alliance) je priprava skupne prijave na evropski razpis, iz česar izhaja, da naj bi bila vsaj ena od sodelujočih univerz, KU Leuven ali UL, koordinator prijavljenega projekta. V letu 2024 so raziskovalci UL FFA izvajali tri projekte v okviru razpisov združenja CELSA:

- Degradation of CDK1 and HDACs as a strategy to treat T-cell malignancies (od leta 2023 ga vodi izr. prof. dr. Izidor Sosič).
- Exploiting structural insights in IP3 receptor function to develop novel, allosteric inhibitors of IP3 receptor channels: SINFONIC (od leta 2023 ga koordinirata prof. dr. Tihomir Tomašič in prof. dr. Lucija Peterlin Mašič).
- The role of snoRNAs in the etiology of inflammatory bowel disease (od leta 2022 ga koordinira izr. prof. dr. Tomaž Bratkovič)

PROJEKTI/AKCIJE COST

COST (ang. European CO-operation in Science and Technology) je medvladni okvir za sodelovanje raziskovalnih organizacij iz različnih evropskih držav na področju znanosti in tehnologije, ki omogoča koordinacijo nacionalno financiranih raziskav na evropski ravni s strani raziskovalnih organizacij samih, ki delujejo na istem področju in problemu. COST zagotavlja podporo raziskovalni dejavnosti s spodbujanjem mobilnosti v okviru COST akcij. Namen tovrstnih akcij je, da z inovativnimi, izvirnimi idejami, ki vodijo do novih konceptov in izdelkov, prispevajo h krepitvi evropske raziskovalne in inovacijske zmogljivosti. UL FFA je v letu 2024 sodelovala v 7 projektih (akcijah) COST.

OTHER INTERNATIONAL PROJECTS

CELSA

The CELSA (Central Europe Leuven Strategic Alliance) projects aim to prepare joint applications for European calls, with at least one participating university (KU Leuven or UL) acting as the project coordinator. In 2024, UL FFA researchers carried out three CELSA projects:

- *Degradation of CDK1 and HDACs as a strategy to treat T-cell malignancies* (led by associate professor Izidor Sosič, since 2023).
- *Exploiting structural insights in IP3 receptor function to develop novel, allosteric inhibitors of IP3 receptor channels: SINFONIC* (coordinated by professor Tihomir Tomašič and Prof. Dr. Lucija Peterlin Mašič, since 2023).
- *The role of snoRNAs in the etiology of inflammatory bowel disease* (coordinated by associate professor Tomaž Bratkovič, since 2022).

COST ACTIONS

COST (European Cooperation in Science and Technology) is an intergovernmental framework for collaboration among research organizations across Europe. It coordinates nationally funded research at the European level and promotes mobility within COST actions. These actions aim to generate innovative ideas leading to new concepts and products, strengthening European research and innovation capacity. In 2024, UL FFA participated in seven COST actions.

PROJEKTI EMA

CONTROL-EU je projekt o implementaciji nadzorovanega dostopa do zdravil in distribucije zdravil v Evropski uniji (CONTROL-EU: Implementation of controlled access to and distribution of medicinal products in European Union) je projekt, ki ga sofinancira Evropska agencija za zdravila (EMA). Namen projekta je preučiti nacionalne postopke uvajanja programov nadzorovanega dostopa (CAP: controlled access programmes) in sistemov nadzorovane distribucije (CDS: controlled distribution systems) v osmih državah (Avstrija, Grčija, Latvija, Nizozemska, Portugalska, Slovenija, Španija, Švedska). Poseben poudarek je na prepoznavanju nacionalnih ovir in spodbujevalcev implementacije obeh programov s strani ključnih deležnikov procesa. CAP/CDS predstavljata najstrožja ukrepa za obvladovanje tveganj, povezanih z zdravili, in raziskava CONTROL-EU bo podala vpogled v izvedljivost in obseg njune implementacije na nacionalni ravni v sodelujočih državah ter pomagala regulatorjem pri uspešni implementaciji dodatnih ukrepov za obvladovanje tveganja v bodoče. UL FFA je v ta projekt vključena od maja 2024 pod koordinatorstvom prof. dr. Mitje Kosa.

PROJEKTI ERASMUS+

DOMINOS predstavlja mednarodni multidisciplinarni projekt Erasmus+ na področju digitalne preobrazbe izobraževanja. Koordinator projekta, ki traja od januarja 2022 do decembra 2024 je Université de Paris. Na projektu z Univerze v Ljubljani sodelujeta Medicinska fakulteta – odgovorni raziskovalki sta asist. dr. Vesna Homar in asist. Lucija Strmšek, in Fakulteta za farmacijo – vodja projekta na UL FFA je prof. dr. Mitja Kos.

EMA PROJECTS

CONTROL-EU (Implementation of controlled access to and distribution of medicinal products in the European Union) is co-funded by the European Medicines Agency (EMA). The project studies national procedures for implementing Controlled Access Programmes (CAPs) and Controlled Distribution Systems (CDS) in eight countries (Austria, Greece, Latvia, Netherlands, Portugal, Slovenia, Spain, and Sweden). It focuses on identifying barriers and facilitators for successful implementation by key stakeholders. CAPs/CDSs are the strictest measures for managing drug-related risks. The study provides insights into feasibility and scope of national implementation and helps regulators develop additional risk-management measures. UL FFA has participated since May 2024, coordinated by professor Mitja Kos.

Erasmus+ Projects

The DOMINOS project is an international, multidisciplinary Erasmus+ project focused on digital transformation in education. Running from January 2022 to December 2024, it was coordinated by Université de Paris. At UL, participants included Faculty of Medicine (research leads: assistant professor Vesna Homar and assistant Lucija Strmšek) and Faculty of Pharmacy (project lead: professor Mitja Kos).

PROJEKTI UNESCO

V letu 2024 smo bili vpeti v projekt UNESCO z naslovom Zdravila in mladi (nosilec: izr. prof. dr. Lovro Žiberna). Projekt se osredotoča na aktivno vključevanje znanosti v družbeno, zdravstveno in gospodarsko življenje in spodbuja razmislek o vlogi znanosti pri razvoju blaginje in ohranjanju miru, ter usmerja pozornost h ključnim družbenim težavam. Cilj projekta je izboljšati odnos do znanosti in povečati zaupanje vanjo.

UNESCO Projects

UL FFA participated in the UNESCO project “Medicines and Youth” (led by associate professor Lovro Žiberna). The project focuses on actively integrating science into social, health, and economic life, encouraging reflection on the role of science in promoting wellbeing and peace, as well as drawing attention to key societal challenges. The aim is to improve public attitudes toward science and increase trust in it.

PRENOS ZNANJA IN  
SODELOVANJE Z OKOLJEM

V sodelovanju s Pisarno za prenos znanja na Univerzi v Ljubljani je prof. dr. Odon Planinšek vložil vlogo za odcepljeno podjetje Univerze v Ljubljani imenovano L-Blend. Gre za družbo z omejeno odgovornostjo (SIA), ustanovljeno leta 2024 v Latviji. Podjetje s pomočjo sodobne tehnologije razvija inovativne izdelke v obliki praška ali disperzibilnih tablet iz vina, pri čemer ohranja ključne bioaktivne spojine (polifenoli, resveratrol, kvercetin in druge) brez vsebnosti alkohola.

KNOWLEDGE TRANSFER AND  
COOPERATION WITH SOCIETY

In cooperation with the Knowledge Transfer Office at the University of Ljubljana, professor Odon Planinšek filed an application for a University of Ljubljana spin-out company called L-Blend, a limited liability company (SIA). The company was established in 2024 in Latvia. Using modern technology, the spin-out company develops innovative powder or dispersible tablet products derived from wine, preserving key bioactive compounds (polyphenols, resveratrol, quercetin, and others) while eliminating the alcohol content.

INOVACIJSKI SKLAD UNIVERZE V LJUBLJANI

Inovacijski sklad Univerze v Ljubljani sofinancira obetavne inovativne projekte in jim pomaga doseči višjo stopnjo tehnološke pripravljenosti. Pisarna za prenos znanja UL vse projekte strokovno podpira, jih spodbuja ter povezuje s podjetji in drugimi organizacijami inovacijskega okolja. V letu 2024 sta dve ekipi z UL FFA prejeli sredstva sklada za izboljšanje tehnološkega procesa in navezavo stikov s potencialnimi razvojnimi partnerji. Prva ekipa deluje pod vodstvom prof. dr. Stanislava Gobca pri projektu z naslovom Razvoj večtarčne učinkovine za zdravljenje Alzheimerjeve bolezni, druga ekipa pa pod vodstvom izr. prof. dr. Špele Zupančič pri projektu z naslovom InflamGuard Duo.

UNIVERSITY OF LJUBLJANA INNOVATION FUND

The University of Ljubljana Innovation Fund co-finances promising innovative projects and helps raise their Technology Readiness Level (TRL). The UL Knowledge Transfer Office provides professional support, promotes projects, and connects them with companies and other organizations in the innovation ecosystem. In 2024, two UL FFA teams received fund support to improve technological processes and establish connections with potential development partners. The first team, led by professor Stanislav Gobec, completed the project entitled *Development of a multitarget active compound for Alzheimer’s disease*. The second team, led by associate professor Špela Zupančič, completed the project entitled: *InflamGuard Duo*.

## UNI.MINDS 2024

Največji slovenski festival za grajenje inovacijske skupnosti in partnerstev med akademskim okoljem in gospodarstvom je potekal med 14. in 22. oktobrom 2024. Na prvem Biotehnološkem vrhu (16. 10. 2024, Nacionalni inštitut za biologijo, NIB), ki je povezal deležnike, ki delujemo na področju farmacije in biotehnologije, je sodelovala prof. dr. Irena Mlinarič-Raščan pri moderaciji panela z naslovom Kako se na povečane potrebe po kadrih odzivamo v akademski sferi. V drugem delu festivala je potekal 6. Lekov dan za raziskovalce, v sklopu katerega je dr. Jerneja Debeljak izvedla predavanje z naslovom Eksperimentalni in bioinformatični pristopi za identifikacijo površinskih epitopov, v katerem je predstavila del svojih raziskovalnih dosežkov v okviru svoje doktorske naloge, ki jo je izdelala pod mentorstvom prof. dr. Mojce Lunder.

## IZUMI, INTELEKTUALNA LASTNINA

Na UL FFA smo nadaljevali s prakso zaščite inovacijske dejavnosti, saj so zaposleni na UL FFA v letu 2024 vložili tri mednarodne patentne prijave.

- prof. dr. Odon Planinšek in Ana Baumgartner sta vložila mednarodno patentno prijavo (PCT) z naslovom Dehidriran vinski proizvod v obliki vododisperzibilnega prahu,
- prof. dr. Stanislav Gobec, doc. dr. Urban Košak, mladi raziskovalec Peter Mastnak-Sokolov, dr. Nika Strašek Benedikt, doc. dr. Damijan Knez in dr. Anže Meden so vložili mednarodno patentno prijavo (PCT) z naslovom 1,3-Disubstituted piperidines, pyrrolidines, hexahydropyrimidines and imidazolidines as butyrylcholinesterase inhibitors and sigma-1 receptor ligands for treatment of brain diseases and disorder,
- dr. Kumar Jagarlamudi Kiran, prof. Eriksson Staffan in prof. dr. Joško Osredkar so vložili mednarodno patentno prijavo (PCT) z naslovom Ovarian cancer risk prediction/Prédiction du risque de cancer de l'ovaire.

## UNI.MINDS 2024

The largest Slovenian festival for building an innovation community and partnerships between academia and industry took place from 14 to 22 October 2024. Under this festival the first Biotechnology Summit event took place on 16 October 2024 at National Institute of Biology, with the aim to connect stakeholders in pharmacy and biotechnology. UL FFA representatives also participated: professor Irena Mlinarič-Raščan moderated the panel *“How academia responds to increased staffing needs”*. The second event under this festival was the 6th Lek Researchers’ Day at which dr. Jerneja Debeljak presented a lecture entitled *“Experimental and bioinformatic approaches for identifying surface epitopes”*, showcasing part of her doctoral research under the supervision of professor Mojca Lunder.

## INVENTIONS AND INTELLECTUAL PROPERTY

UL FFA continued its practice of protecting innovation activities. In 2024, our staff submitted three international patent applications:

- Professor Odon Planinšek and Ana Baumgartner, submitted a PCT patent entitled: *“Dehydrated wine product in the form of water-dispersible powder”*.
- Professor Stanislav Gobec, assistant professor Urban Košak, young researcher Peter Mastnak-Sokolov, dr. Nika Strašek Benedikt, assistant professor Damijan Knez, and dr. Anže Meden submitted a PCT patent entitled: *“1,3-Disubstituted piperidines, pyrrolidines, hexahydropyrimidines and imidazolidines as butyrylcholinesterase inhibitors and sigma-1 receptor ligands for the treatment of brain diseases and disorders”*.
- Dr. Kumar Jagarlamudi Kiran, professor Staffan Eriksson, and professor Joško Osredkar submitted a PCT patent entitled: *“Ovarian cancer risk prediction / Prédiction du risque de cancer de l'ovaire”*.

## SODELOVANJE Z OKOLJEM

### Delavnice mehkih veščin za doktorske in podoktorske študente

V letu 2024 smo v okviru inovativnega projekta opolnomočenja doktorskih in podoktorskih študentov z znanjem in veščinami za doseganje znanstveno-raziskovalne odličnosti izvedli pet interaktivnih treningov mehkih veščin. Dogodki so potekali v sklopu projekta *Brunching with soft- and research skills at UL FFA: unlocking your full potential*. Projekt se izvaja v sodelovanju z zunanjimi partnerji, kot so Ljubljanski univerzitetni inkubator, Pisarna za prenos znanja UL, predstavniki iz farmacevtske industrije ter mednarodno uveljavljeni akademiki. Cilj projekta je spodbujati mednarodno sodelovanje in ugled UL FFA, povezati tehnična znanja z mehкими veščinami, teorijo s prakso ter znanost s podjetništvom. Vse te aktivnosti so okrepile raziskovalni potencial in osebno rast doktorskih študentov ter prispevale k razvoju inovacijskega prostora in novih kompetenc.

### Poletna šola ADVANCE (v okviru projekta 8.10 NOO ULTRA)

Potekala je v času od 10. 6. do 14. 6. 2024 v Ljubljani. Na intenzivni enotedenski delavnici z naslovom ADVANCE: zdravlila za napredno zdravljenje (ADVANCE Workshop on advance therapy medicinal products) so predavali vrhunski strokovnjaki s področja zdravil za napredno zdravljenje, udeleženci pa so lahko pridobili široko znanje o teh zdravilih, in sicer z vidika znanosti, proizvodnje, regulative in trženja. Dogodek je bil izveden pod okriljem UL FFA v sodelovanju z ostalimi partnerji.

## COLLABORATION WITH THE ENVIRONMENT

### Soft skills workshops for PhD and postdoctoral students

In 2024, under the project *“Brunching with Soft- and Research Skills at UL FFA: Unlocking Your Full Potential”*, five interactive soft skills training sessions were conducted to empower doctoral and postdoctoral students with skills for achieving research excellence. The project involved external partners including the Ljubljana University Incubator, the UL Knowledge Transfer Office, representatives from the pharmaceutical industry, and internationally recognized academics. The aim is to promote international collaboration, enhance UL FFA’s reputation, integrate technical knowledge with soft skills, theory with practice, and science with entrepreneurship. These activities boosted both the research potential and personal development of doctoral students and contributed to the growth of the innovation ecosystem and new competencies.

### ADVANCE Summer School (part of project 8.10 NOO ULTRA)

Held from 10 to 14 June 2024 in Ljubljana, this intensive week-long workshop, entitled *“ADVANCE: Advanced Therapy Medicinal Products”*, featured lectures by leading experts in advanced therapy medicinal products (ATMPs). Participants gained comprehensive knowledge from the perspectives of science, production, regulation, and marketing. The event was organized by UL FFA in collaboration with other partners.

**Mednarodna poletna šola Kozmetologije**

Potekala je od 17. do 20. 9. 2024 v sodelovanju z Univerzo v Beogradu v angleškem jeziku.

**Mednarodna poletna šola Oblikovanje in uporaba inhibitorjev peptidaze in aktivnih sond**

Potekala je v sodelovanju z Univerzo v Bonnu od 15. 4. 2024 do 17. 4. 2024 v angleškem jeziku, in sicer za študente 4. letnika študijskega programa Farmacija pri predmetu Biokemija nastanka in napredovanja raka.

**Strokovno izpopolnjevanje s področja farmacije Prehranska dopolnila: dejstva, izzivi in trendi**

V letu 2024 smo za farmacevte izvedli strokovno izpopolnjevanje z naslovom Prehranska dopolnila: dejstva, izzivi in trendi. V dveh ponovitvah v septembru 2024 se je izobraževanja udeležilo 192 lekarniških delavcev in zaposlenih UL FFA.

**Soorganizacija 1. znanstvenega simpozija Sekcije za zgodovino farmacije pri Slovenskem farmacevtskem društvu**

Simpozij je potekal 19. septembra 2024, na njem pa so bile predstavljene zgodovinske zbirke s področja farmacije na področju Republike Slovenije in ravnanje z arhivskim gradivom.

International summer school in cosmetology

Held for three days starting on 17 September 2024 in collaboration with the University of Belgrade, conducted in English.

International summer school: Design and use of peptidase inhibitors and active probes

Held in collaboration with the University of Bonn from 15 to 17 April 2024, targeted at 4th-year Pharmacy study programme students in the course Biochemistry of Cancer Development.

Professional training in pharmacy: Dietary supplements – facts, challenges, and trends

In 2024, a professional training program on dietary supplements was conducted for pharmacists. In two sessions in September 2024, 192 pharmacy professionals and UL FFA employees participated.

Co-organization of the 1st Scientific symposium of the History of pharmacy section of the Slovenian pharmaceutical society

The symposium was held on 19 September 2024, presenting historical pharmacy collections in Slovenia and discussing the management of archival materials.

MEDNARODNA DEJAVNOST

Mednarodna dejavnost UL FFA je tudi v študijskem letu 2023/2024 ostala ena od osrednjih razvojnih usmeritev fakultete. Med pomembnejše dosežke v letu 2024 sodi sklenitev novega sporazuma o sodelovanju z univerzo L’Université d’Aix-Marseille (Marseille, Francija) ter potrditve interesa aktivnih Erasmus+ partnerjev za podaljšanje sodelovanja do leta 2028, kar potrjuje kakovost in trajnost naših mednarodnih povezav. Z namenom dodatne krepitev mednarodne dejavnosti na ravni študijskih izmenjav smo v tem letu na podlagi analize potreb tujih študentov uvedli novo učno enoto v angleškem jeziku. S tem se je skupno število predmetov, ki jih UL FFA ponuja v angleščini, povečalo na 16. Ta razširitev predstavlja pomemben korak k večji odprtosti, dostopnosti in konkurenčnosti fakultete v mednarodnem visokošolskem prostoru. Ponosni smo tudi na nadaljnjo rast mednarodne mobilnosti zaposlenih, ki pomembno prispeva k prenosu znanja, razvoju novih partnerstev in večji prepoznavnosti fakultete v akademskem in raziskovalnem okolju.

INTERNATIONAL ACTIVITY

The international activities of the UL FFA remained one of the faculty's key development priorities in the 2023/2024 academic year. Among the most important achievements in 2024 were the conclusion of a new cooperation agreement with L’Université d’Aix-Marseille (Marseille, France) and the confirmation of interest by active Erasmus+ partners in extending cooperation until 2028, which confirms the quality and sustainability of our international connections. In order to further strengthen international activities in student exchanges, we introduced a new course in English this year, based on an analysis of the needs of foreign students. This brings the total number of courses offered by UL FFA in English to 16. This expansion represents an important step towards greater openness, accessibility, and competitiveness of the faculty in the international higher education area. We are also proud of the continued growth in the international mobility of our staff, which contributes significantly to the transfer of knowledge, the development of new partnerships, and greater recognition of the faculty in the academia and research.

MOBILNOST ŠTUDENTOV

V študijskem letu 2023/2024 se je 38 študentov UL FFA udeležilo mednarodnih izmenjav v okviru programa Erasmus+, od tega 26 za študij in 12 za praktično usposabljanje, med njimi so trije 3 opravljali raziskovalno delo v sklopu priprave diplomske oziroma magistrske naloge. Najpogostejši destinaciji sta bili Nemčija in Portugalska (8), sledile so Španija (7), Češka (3), Finska in Italija (2) ter Turčija, Estonija, Belgija, Poljska, Hrvaška, Švedska, Malta in Avstrija (po 1). Dodatno je 22 študentov opravilo krajšo, do enomesečno prakso v okviru programa IPSF.

UL FFA je v istem obdobju gostila 50 tujih študentov, ki so na fakulteti opravljali študijske in raziskovalne obveznosti, predvsem v okviru programov Erasmus+ in CEEPUS. Od teh jih je 26 obiskovalo predmete, 11 jih je opravljalo raziskovalno delo za magistrsko nalogo, 13 pa jih je sodelovalo v laboratorijih. Še 22 študentov je na fakulteti opravilo kratkotrajno prakso v okviru IPSF. Vsakemu tujemu študentu, ki se je vključil v pedagoški proces v okviru Erasmus+, je bil dodeljen Erasmus tutor, katerega delo je koordiniral glavni tutor. Sistem tutorstva zagotavlja podporo pri študijskih, raziskovalnih in obštudijskih izzivih ter spodbuja integracijo tujih študentov v akademsko okolje UL FFA.

STUDENT MOBILITY

In the 2023/2024 academic year, 38 students from the UL FFA participated in international exchanges under the Erasmus+ program, 26 of them for study and 12 for practical training, including three who conducted research for their bachelor's or master's theses. The most popular destinations were Germany and Portugal (8), followed by Spain (7), the Czech Republic (3), Finland and Italy (2), and Turkey, Estonia, Belgium, Poland, Croatia, Sweden, Malta, and Austria (1 each). In addition, 22 students completed shorter, up to one-month internships as part of the IPSF program.

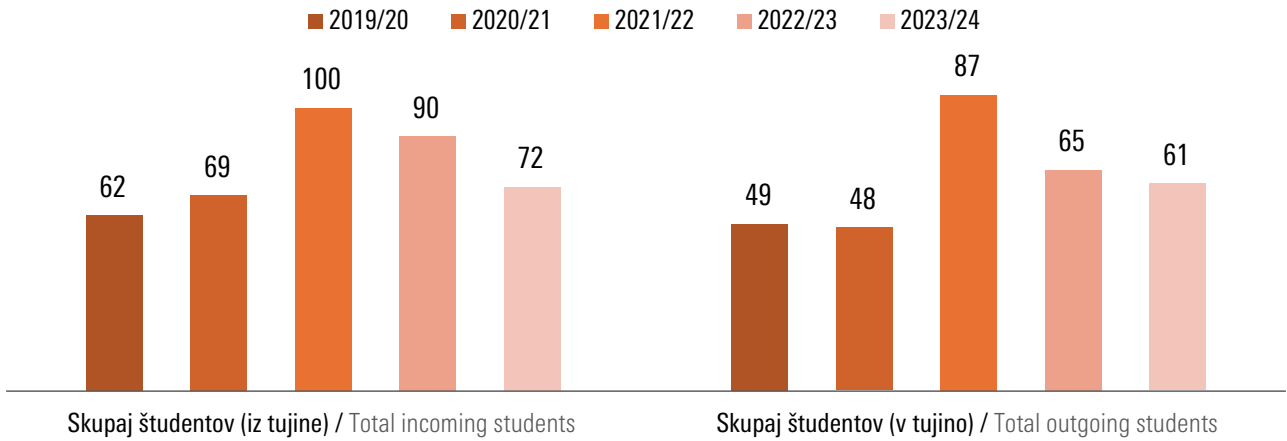
During the same period, the UL FFA hosted 50 foreign students who completed their study and research obligations at the Faculty, mainly under the Erasmus+ and CEEPUS programs. Of these, 26 attended courses, 11 conducted research work for their master's thesis, and 13 participated in laboratories. Another 22 students completed short-term internships at the Faculty through IPSF. Each foreign student who participates in the educational process under the framework of Erasmus+ is assigned an Erasmus tutor, whose work is coordinated by the main tutor. The tutoring system provides study , and research support, as well as extracurricular challenges and promotes the integration of foreign students into the academic environment of the UL FFA.

MOBILNOST UČITELJEV, RAZISKOVALCEV IN ADMINISTRATIVNIH SODELAVCEV

Med zaposlenimi so se v letu 2024 trije visokošolski učitelji oziroma znanstveni sodelavci udeležili izmenjav v tujini v trajanju od dveh do treh mesecev, medtem ko so se štirje administrativni sodelavci vključili v krajše mobilnosti, ki so trajale do štiri tedne. Na UL FFA smo v tem obdobju gostili 16 tujih učiteljev in 9 raziskovalcev, pri čemer se je en učitelj udeležil kombinirane mobilnosti. Skupno je tako na fakulteti v okviru različnih programov mobilnosti sodelovalo 27 tujih strokovnjakov, ki so dejavno prispevali k pedagoškemu in raziskovalnemu delu. Ponosni smo na rast mednarodne mobilnosti zaposlenih, saj pomembno prispeva k prenosu znanja, razvoju novih partnerstev in večji prepoznavnosti fakultete v akademskem in raziskovalnem okolju.

MOBILITY OF TEACHERS, RESEARCHERS, AND ADMINISTRATIVE STAFF

In 2024, three university teachers or research associates took part in exchanges abroad lasting two to three months, while four administrative staff members participated in shorter mobility programs lasting up to one month. During this period, the UL FFA hosted 16 foreign teachers and 9 researchers, with one teacher participating in a combined mobility program. A total of 27 foreign experts participated in various mobility programs at the Faculty, actively contributing to teaching and research work. We are proud of the growth in international mobility among our employees, as it contributes significantly to the transfer of knowledge, the development of new partnerships, and greater recognition of the faculty in academia and research.



Število študentov UL FFA na izmenjavi v tujini in število mednarodnih študentov na izmenjavi na UL FFA (zadnjih pet študijskih let) / Number of UL FFA students on exchange abroad and number of international students on exchange at UL FFA (last five academic years).

## KARIERNI CENTER

Karierni centri Univerze v Ljubljani so del Univerzitetne službe za študente in alumne (USŠA) in delujejo na vsaki članici Univerze v Ljubljani. Namen kariernih centrov je povezovanje študentov s trgom dela. V ta namen izvajamo dogodke in delavnice na temo vseživljenjske karijerne orientacije, karijerne dneve, obiske pri potencialnih delodajalcih ter individualno karierno svetovanje. Na UL FFA deluje karierni svetovalec mag. Klemen Marinčič. V okviru KC UL FFA so študenti povezani v digitalni portal POPR (portal osebnega in profesionalnega razvoja), prek katerega se lahko prijavljajo na dogodke in individualna karierna svetovanja ter se informirajo o kariernih priložnostih.



Fotografija: Predstavitev kariernih poti alumnov UL FFA, 19. november 2024 / Photo: Presentation of career paths of UL FFA alumni, November 19, 2024

## CAREER CENTER

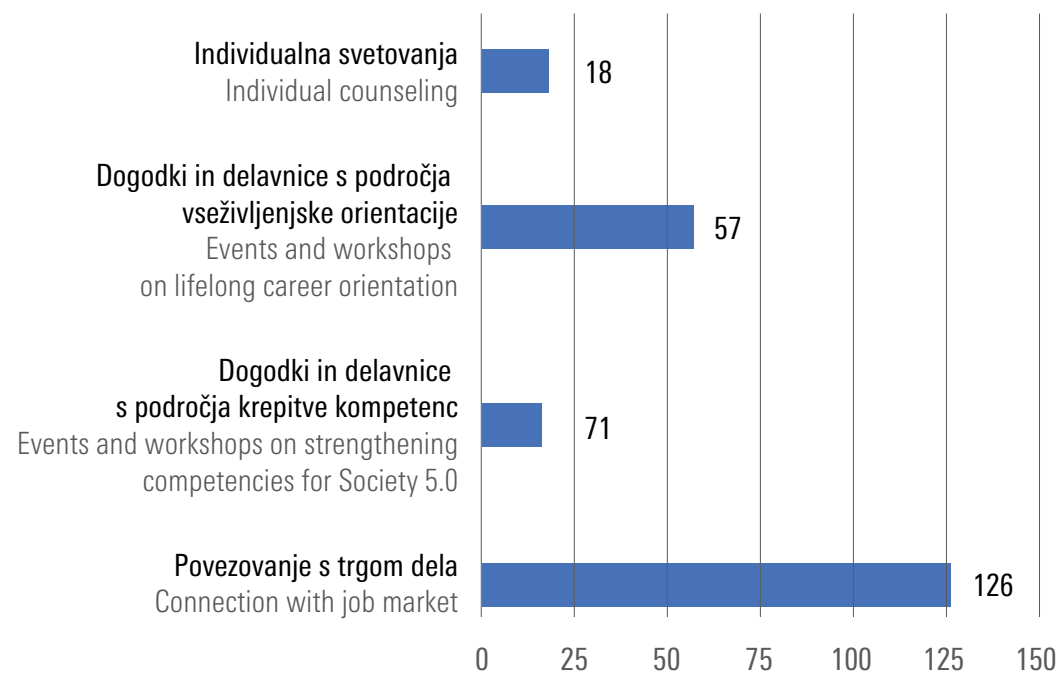
The Career Centres of the University of Ljubljana are part of the University Service for Students and Alumni (USŠA) and operate at each member of the University of Ljubljana. The purpose of the Career Centres is to connect students with the labour market. To this end, we organise events and workshops on lifelong career orientation, career days, visits to potential employers and individual career counselling. The Career Counsellor at UL FFA is. Klemen Marinčič, MSc. Under the KC UL FFA, students are connected to the POPR digital portal (personal and professional development portal), through which they can register for events and individual career counselling and obtain information about career opportunities.

KC UL FFA povezuje študente s trgom dela, hkrati pa sodeluje tudi z drugimi študentskimi organizacijami na UL FFA. V letu 2024 so bile v okviru KC UL FFA izvedene sledeče aktivnosti:

- **Individualna svetovanja;**  
svetovanja s področja osebnega in kariernega razvoja, podjetništva, izbire študija na drugi in tretji stopnji, pregled življenjepisa in motivacijskega pisma ter profila LinkedIn (na svetovanje vse leto prihajajo študenti po predhodni prijavi),
- **Dogodki in delavnice s področja vseživljenjske karijerne orientacije;**  
izvedba dogodkov in delavnic s področja pisanja življenjepisa, uporabe omrežja LinkedIn, priprave na razgovor, življenjepis in motivacijsko pismo za SEP prakse, simulacija selekcijskega postopka, vse o delovnem mestu ter iskanje zaposlitve,
- **Dogodki in delavnice s področja krepitve kompetenc za družbo 5.0;**  
izvedba dogodkov in delavnic računalniškega programa excel, skrb za dobro psihofizično počutje, osebne finance, delovno pravo, javno nastopanje, tehnike govora in retorika, podjetništvo ter projektni management,
- **Povezovanje s trgom dela;**  
karierni dan s hitrimi zmenki, predstavitev kariernih poti alumnov FFA,
- **Izvedba razpisa Srčna UL;**  
poleg aktivnosti, vezanih na vseživljenjsko karierno orientacijo, smo v okviru Kariernih centrov UL v letu 2024 organizirali humanitarno akcijo Srčna UL, v okviru katere smo za študente UL, ki so se znašli v finančni stiski, zbirali sredstva za sofinanciranje študijskih pripomočkov.

The KC UL FFA connects students with the labour market, and also cooperates with other student organizations at the UL FFA. In 2024, the following activities were carried out within the KC UL FFA Center:

- **Individual counselling;**  
counselling in personal and career development, entrepreneurship, choice of second and third-cycle studies, review of CVs and motivation letters, and LinkedIn profiles (students attend counselling throughout the year after prior registration).
- **Events and workshops on lifelong career orientation;**  
conducting events and workshops in CV writing, using the LinkedIn network, interview preparation, CV and motivation letter for SEP internships, simulation of the selection process, everything about the workplace and job search.
- **Events and workshops on boosting competencies for Society 5.0;**  
conducting events and workshops on the Excel software package, taking care of psychophysical well-being, personal finances, labour law, public speaking, speaking techniques and rhetoric, entrepreneurship, and project management.
- **Connection with the job market;**  
career day with speed dating, presentation of career paths of FFA alumni.
- **Implementation of the Heart UL tender;**  
in addition to activities related to lifelong career guidance, in 2024, we organized the humanitarian campaign Heart of UL under UL Career Centres, running a charity drive to co-finance study aids for UL students who found themselves in financial difficulty.



Udeležba študentov UL FFA na posameznih aktivnostih KC UL FFA v letu 2024 / The number of participations of UL FFA students in activities of the KC UL FFA in 2024

## OBŠTUDIJSKA DEJAVNOST

Študentska organiziranost na UL FFA je specifična in študentom omogoča širok spekter delovanja tako na strokovnih področjih kot tudi v obštudijskih dejavnostih in pri mednarodnem udejstvovanju. Študentski svet UL FFA (ŠS FFA) je organ študentov UL FFA, ki uspešno deluje že vrsto let in se je uveljavil kot zelo konstruktiven sogovornik pri vprašanjih, povezanih s študijskim procesom in kakovostjo UL FFA. Ena izmed številnih nalog ŠS FFA je oblikovanje mnenj o pedagoških delavcih, s čimer jim omogoča izvolitev v zahtevane nazive. ŠS FFA je uradni zastopnik študentov UL FFA na vseh organizacijskih ravneh in uspešno sodeluje v sklopu organov fakultete (Senat, Upravni odbor, Komisija za študijsko področje, Akademski zbor, Komisija za kakovost, Disciplinska komisija). Svoje študente zastopa tudi v okviru Univerze v Ljubljani na sejah ŠS UL.

Poleg omenjenih nalog in aktivnosti je ŠS FFA v letu 2024 že peto leto zapored uspešno organiziral Uvodni dan za bruce (UDB). Dogodek je namenjen študentom prvih letnikov študijskih programov Kozmetologija, EMŠ Farmacija in prve stopnje programa Laboratorijska biomedicina. Njegov namen je novim študentom olajšati prehod iz srednješolskega v univerzitetno okolje ter jih podrobneje seznaniti z UL FFA. Pod okriljem ŠS FFA pa od leta 2020 deluje tudi pevski zbor UL FFA, ki študentom omogoča kulturno udejstvovanje.

## EXTRACURRICULAR ACTIVITIES

Student organization at the Faculty of Pharmacy at the University of Ljubljana (UL FFA), is specific in its structure and offers students a wide range of opportunities for professional, extracurricular, and international engagement. The Student Council of UL FFA (ŠS FFA) is the official body representing the students of UL FFA. It has been successfully operating for many years and has established itself as a very constructive interlocutor in matters related to the study process and the quality of UL FFA. One of the many duties of the Student Council is to provide evaluations of the teaching staff, which enables them to obtain the required academic titles. The Student Council is the official representative of UL FFA students at all organizational levels and successfully participates in the work of faculty bodies (Senate, Management Board, Study Affairs Committee, Academic Assembly, Quality Committee, and Disciplinary Committee). It also represents students at the level of University of Ljubljana through the sessions of the University Student Council.

In addition to these responsibilities and activities, in 2024 the Student Council successfully organized the Freshmen's Welcome Day (UDB) for the fifth consecutive year. The event is intended for first-year students of the study programs in Cosmetology, Master of Pharmacy, and the first cycle of Laboratory Biomedicine. Its purpose is to facilitate the transition from secondary school to the university and to acquaint new students more closely with UL FFA. Since 2020, the UL FFA Choir has also been active under the auspices of the Student Council, enabling students to pursue cultural activities.

Na UL FFA poleg ŠS FFA delujejo tudi Društvo študentov farmacije Slovenije (DŠFS), Društvo študentov farmacevtskih ved (DŠFV) in Študentska sekcija Slovenskega farmacevtskega društva (ŠSSFD). V okviru DŠFS študenti zelo aktivno sodelujejo tudi v evropskem in svetovnem prostoru. Skupaj s ŠS FFA in Študentsko organizacijo Fakultete za farmacijo so uspešno sodelovali pri organizaciji strokovnih in družabnih projektov, kot so IPSC, letni kongres EPSA (European Pharmaceutical Students' Association), strokovni večeri in okrogle mize. Študentska organizacija Fakultete za farmacijo (ŠOFFA) je ena izmed podružnic ŠOU v Ljubljani. Tudi v letu 2024 je organizirala različne dogodke, ki študentom v prostem času pomagajo bolje spoznati svoje sošolce, študente UL FFA ter študente drugih članic UL.

### Informativni dnevi

Študenti UL FFA predstavljajo fakulteto, študijske programe in obštudijske aktivnosti na vsakoletnih informativnih dogodkih za dijake srednjih šol.

Alongside the Student Council, other organizations also operate at UL FFA: the Slovenian Pharmacy Students' Association (DŠFS), the Association of Pharmaceutical Sciences Students (DŠFV), and the Student Section of the Slovenian Pharmaceutical Society (ŠSSFD). Within DŠFS, students are actively involved in European and global networks. Together with the Student Council and the Student Organization of the Faculty of Pharmacy, they have successfully collaborated in organizing professional and social projects such as IPSC, the annual EPSA (European Pharmaceutical Students' Association) Congress, expert evenings, and round tables. The Student Organization of the Faculty of Pharmacy (ŠOFFA) is one of the branches of the Student Organization of the University of Ljubljana (ŠOU). In 2024, ŠOFFA once again organized various events that help students get to know their classmates, UL FFA students, as well as students from other faculties of the University.

### Information Days

UL FFA students present the faculty, its study programs, and extracurricular activities at the annual information day events for secondary school students.

### *Spatula in Placebo*

*Spatula* je glasilo Študentske sekcije Slovenskega farmacevtskega društva, katerega vsebino soustvarjajo vsi študenti Fakultete za farmacijo. Namenjeno je seznanjanju študentov in strokovne javnosti z aktualnimi temami s področja farmacije, laboratorijske biomedicine, kozmetologije in sorodnih panog ter z obštudijskim dogajanjem na fakulteti. Glasilo izide trikrat v študijskem letu. Poleg recenziranih strokovnih člankov in poročil o družabnih ter strokovnih projektih vsebuje tudi intervjuje z vidnimi osebami s področja farmacije, prispevke o strokovnih praksah v tujini in o študijskih izmenjavah, ki študente seznanjajo z možnostmi za mednarodno udejstvovanje, ter druge zanimive vsebine.

V letu 2024 je izšla tudi strokovna revija *Placebo* s strokovnimi prispevki, posvečenimi obravnavi nevrodegenerativnih bolezni.

### 10. simpozij Študentske sekcije Slovenskega farmacevtskega društva

V soboto, 19. oktobra 2024, je potekal simpozij z naslovom *Pod kožo: Razkrivanje in vpogled v avtoimunske bolezni kože*, katerega osrednja tema so bili sodobni pristopi pri obravnavi in zdravljenju avtoimunskih kožnih bolezni. Dogodek je pritegnil številne študente in strokovnjake, ki so s predavanji in okroglo mizo pridobili vpogled v aktualna dognanja na tem področju. V okviru simpozija je potekala tudi okrogla miza z naslovom *Mozaik življenja z avtoimunskimi boleznimi kože*, ki jo je vodil dr. Alen Krajnc. Sodelovale so Gabi Nedič, Monika Krošel, dr. med., ter asist. dr. Aleksandra Bergant Suhodolčan, dr. med., spec. dermatovenerologije.

### *Spatula and Placebo*

*Spatula* is the magazine of the Student Section of the Slovenian Pharmaceutical Society, created collaboratively by all students of the Faculty of Pharmacy. Its purpose is to inform students and the experts about current topics in pharmacy, laboratory biomedicine, cosmetology, and related fields, as well as about extracurricular activities at the Faculty. The magazine is published three times per academic year. In addition to peer-reviewed scientific articles and reports on social and professional projects, it also features interviews with prominent figures in pharmacy, contributions about international internships, study exchanges, and other engaging content.

In 2024, the scientific journal *Placebo* was also published, dedicated to the topic of neurodegenerative diseases.

### 10<sup>th</sup> Symposium of the Student Section of the Slovenian Pharmaceutical Society

On Saturday, 19 October 2024, the symposium entitled *Under the Skin: Discovering and Understanding Autoimmune Skin Diseases* took place. Its central topic was modern approaches to the management and treatment of autoimmune skin diseases. The event attracted many students and professionals who, through lectures and a round table, gained valuable insights into the latest developments in this field. As part of the symposium, a round table entitled *The Mosaic of Life with Autoimmune Skin Diseases* was also held, moderated by Dr. Alen Krajnc, with contributions from Gabi Nedič, Monika Krošel, MD, and Assist. Prof. Dr. Aleksandra Bergant Suhodolčan, MD, specialist in dermatovenereology.

### Strokovni dogodki

V letu 2024 je Društvo študentov farmacije Slovenije izpeljalo številne strokovne večere, med drugim *Addiction* – drug is a bug v sklopu Twinnet izmenjave, predavanje o PCOS in endometriozni, strokovni večer o Crohnovi bolezni, strokovni večer o obvladovanju stresa ter strokovni večer v sklopu projekta InterAKCIJA o prehranskih dopolnilih v športu in doping.

### Javne kampanje

Študenti so v letu 2024 organizirali in izvedli naslednje javne kampanje: **Vampire cup** – krvodajalska akcija, **SPF kampanja**, projekt **Zdravila in mladi** ter **Test je raku protest** – ozaveščanje o presejalnih programih v Sloveniji. V sodelovanju s fakulteto so posneli tudi podkast na temo prenove magistrskega programa Laboratorijske biomedicine.

### Humanitarna dejavnost

V letu 2024 sta pod okriljem humanitarne skupine društva potekala spomladanski in božični bazar, na katerih so lahko študenti in zaposleni UL FFA kupili ročno izdelano kozmetiko, voščilnice in druga darilca, ki so jih pripravili študenti. Izkupiček od prodaje je bil namenjen humanitarni organizaciji za pomoč družinam v stiski. Decembra so izvedli tudi obdarovanje starostnikov in obiskali Dom starejših občanov v Naklem. Med letom so sodelovali pri projektu Medimedo in v ambulanti Pro Bono.

### Professional Events

In 2024, the Slovenian Pharmacy Students' Association organized several professional evenings, including *Addiction – drug is a bug* as part of the Twinnet exchange, a lecture on PCOS and endometriosis, an event on Crohn's disease, an evening dedicated to stress management, and an *InterAKCIJA* project lecture on dietary supplements in sports and doping.

### Public Campaigns

In 2024, students organized and carried out the following public campaigns: **Vampire Cup** – a blood donation campaign, the **SPF campaign**, the project **Medicines and Youth**, and **Test je raku protest** – raising awareness about national cancer screening programs in Slovenia. In cooperation with the faculty, a podcast was also recorded on the renewal of the Master's program in Laboratory Biomedicine.

### Humanitarian Activities

In 2024, the student humanitarian group organized both a spring and a Christmas bazaar, where students and staff of UL FFA could purchase handmade cosmetics, greeting cards, and other small gifts prepared by students. The proceeds were donated to a humanitarian organization supporting families in need. In December, students also prepared Christmas gifts for the elderly and visited the Naklo Nursing Home. Throughout the year, they participated in the *Medimedo* project and in the Pro Bono Clinic.



Fotografija: Obštudijske dejavnosti UL FFA / Photo: Extracurricular activities

ŠPORTNE DEJAVNOSTI

ŠPORTNE DEJAVNOSTI ZA ŠTUDENTKE  
IN ŠTUDENTE UL FFA

- Odbojka
- Plavanje
- Pohodništvo
- Planinski izleti
- Mali nogomet
- Košarka
- Košarka 3 x 3
- Fitnes
- Pilates
- Aerobika
- Družabni ples
- Zimski športi (alpsko smučanje, deskanje, tek na smučeh)

Število študentk in študentov s statusom vrhunskega športnika: 26

EKIPE UL FFA (UNIVERZITETNA LIGAŠKA  
TEKMOVANJA)

- Košarka 3 x 3 (ženske): 1. mesto
- Košarka (moški): 5. mesto
- Odbojka (ženske): 5. mesto
- Odbojka (moški): 13. mesto
- Dvoranski nogomet (moški): 9. mesto
- Pikado (moški): 1. in 2. mesto
- Plavanje (ženske): 3. mesto

SPORT ACTIVITIES

SPORTS ACTIVITIES FOR STUDENTS  
OF UL FFA

- Volleyball
- Swimming
- Hiking
- Mountain trips
- Futsal (small-sided indoor 5-a-side football)
- Basketball
- Basketball 3-a-side
- Fitness
- Pilates
- Aerobics
- Social dance
- Winter sports (alpine skiing, snowboarding, cross-country skiing)

Number of students with elite athlete status: 26

UL FFA TEAMS (UNIVERSITY LEAGUE  
COMPETITIONS)

- Basketball (3-a-side, women): 1st place
- Basketball (men): 5th place
- Volleyball (women): 5th place
- Volleyball (men): 13th place
- Indoor football (men): 9th place
- Darts (men): 1st and 2nd place
- Swimming (women): 3rd place

PROMOCIJA ZDRAVJA NA DELOVNEM MESTU  
ZA ZAPOSLENE UL FFA

- Organizirani aktivni odmori
- Organizacija zimskega in poletnega športnega dne
- Pohodništvo
- Pilates

WORKPLACE HEALTH PROMOTION  
FOR UL FFA STAFF

- Organized active breaks
- Organization of winter and summer sports days
- Hiking
- Pilates



Fotografija: Ekipe UL FFA / Photo: UL FFA teams



3

Ponosni smo  
We are proud

Fakulteta za farmacijo Univerze v Ljubljani je v letu 2024 dosegla pomemben mejnik v krepitvi svoje mednarodne prepoznavnosti. Prof. dr. Borut Božič je bil izvoljen za predsednika Evropskega združenja farmacevtskih fakultet (EAFP) za mandatno obdobje 2024–2027. Združenje vodi razvoj farmacevtskega izobraževanja in raziskovanja ter spodbuja sodelovanje med univerzami, krepitev kakovosti pedagoškega procesa in usklajevanje evropskih standardov na področju farmacije. Doc. dr. Nejc Horvat je bil v letu 2024 imenovan za častnega člana Pharmaceutical Care Network Europe, evropske mreže raziskovalcev farmacevtske skrbi, ki razvija nove kognitivne lekarniške storitve. V okviru te mreže sta se izoblikovala koncept pregleda zdravil in klasifikacija težav, povezanih z zdravili.

Septembra smo na UL FFA gostili dogodek Znanost za prihodnost: skupaj gradimo boljši svet, na katerem je predaval Nobelov nagrajenec Sir Gregory P. Winter. Na predavanju je poudaril pomen povezovanja akademske sfere, industrije in zagonskih podjetij pri uvajanju inovacij v klinično prakso. Dogodek je potekal v sodelovanju z Lekom d.d., Ljubljanskim univerzitetnim inkubatorjem in Britanskim veleposlaništvom ter spodbudil mednarodno izmenjavo znanja in mreženje strokovnjakov.

The Faculty of Pharmacy of the University of Ljubljana reached an important milestone in boosting its international visibility in 2024. Professor Borut Božič was elected President of the European Association of Faculties of Pharmacy (EAFP) for the 2024–2027 term. The Association guides the development of pharmaceutical education and research, encourages cooperation among universities, enhances the quality of teaching, and supports the harmonization of European standards in the field of pharmacy. Additionally, assistant professor Nejc Horvat was appointed an honorary member of the Pharmaceutical Care Network Europe, a European network of pharmaceutical care researchers that develops new cognitive pharmacy services. This network has contributed significantly to shaping the concept of medication review and the classification of drug-related problems.

In September 2024, the UL FFA hosted the event “Science for the Future: Building a Better World Together,” featuring a lecture by Nobel laureate Sir Gregory P. Winter. In his talk, he emphasized the importance of connecting academia, industry, and startups in bringing innovation into clinical practice. The event, organized in collaboration with Lek d. d., the University of Ljubljana Incubator, and the British Embassy, fostered international knowledge exchange and networking among experts.

Fakulteta tudi letos izstopa z izjemnimi dosežki svojih raziskovalk in raziskovalcev. Prof. dr. Irena Mlinarič-Raščan je prejela zlato plaketo UL za svoje vrhunsko znanstveno in pedagoško delo ter za svoje povezovalno delovanje v akademskem in družbenem prostoru. Doc. dr. Damijan Knez je bil nagrajen s svečano listino za mlade visokošolske učiteljice in učitelje, asist. dr. Jaka Dernovšek pa je za svojo izjemno doktorsko raziskavo na področju protitumorskih učinkovin prejel Preglovo nagrado. Poleg tega so raziskovalke s Katedre za farmacevtsko tehnologijo, Katarina Bolko Seljak, Mirjam Gosenca Matjaž in Mirjana Gašperlin, prejele srebrno priznanje Strateško razvojno-inovacijskega partnerstva za inventivno rešitev na področju krožnega gospodarstva. Ti dosežki potrjujejo, da se naša fakulteta razvija kot prostor odličnosti, mentorstva in vrhunskega raziskovanja. Prav tako smo ponosni, da je bilo v letu 2024 v naziv redni profesor izvoljenih kar pet naših kolegic in kolegov: prof. dr. Mojca Kerec Kos, prof. dr. Petra Kocbek, prof. dr. Matej Sova, prof. dr. Urban Švajger in prof. dr. Tomaž Vovk.

O uspešni vzgoji mlajšega raziskovalnega kadra pričajo tudi dekanove nagrade za leto 2024, namenjene študentom in mladim raziskovalcem do dveh let po zagovoru doktorata. Kar tri od šestih nagrajenih objav so bile prepoznane kot izjemni znanstveni dosežki, objavljeni v revijah s faktorjem vpliva nad 8,0. Odličnost študentov in mentorjev se odraža tudi v uspehu na 54. Krkinih nagradah. Med petimi prejemniki velikih nagrad so bili ponovno trije mladi doktorji znanosti z naše fakultete, študentke in študenti pa so prejeli še 40 nagrad, pohval in priznanj. Krkine nagrade mladim raziskovalkam in raziskovalcem odpirajo dodatne priložnosti za uveljavitev v gospodarstvu ter v raziskovalnih in visokošolskih ustanovah.

The Faculty once again stands out for the exceptional achievements of its researchers. Professor Irena Mlinarič-Raščan received the University of Ljubljana Gold Plaque for her outstanding scientific and pedagogical work and her contributions to connecting academia and society. Associate professor Damijan Knez was awarded the Special Commendation for Young Higher Education Teacher, and dr. Jaka Dernovšek received the Pregl Award for his exceptional doctoral research on antitumour agents. Additionally, researchers from the Department of Pharmaceutical Technology, namely assistant professor Katarina Bolko Seljak, assistant professor Mirjam Gosenca Matjaž and professor Mirjana Gašperlin received the Silver Prize from the Strategic Research and Innovation Partnership. These accomplishments confirm that our faculty continues to grow as a place of excellence, mentorship, and top-level research. We are also proud that in 2024, five colleagues were promoted to full professorship: professor Mojca Kerec Kos, professor Petra Kocbek, professor Matej Sova, professor Urban Švajger and professor Tomaž Vovk.

The success of our efforts to cultivate young researchers is further reflected in the Dean’s Awards for 2024, intended for students and early-career researchers within two years of completing their PhD. Three of the six awarded publications were recognized as outstanding scientific achievements, published in journals with an impact factor above 8.0. The excellence of our students and mentors is also evident in the results of the 54th Krka Awards. Among the five recipients of the Grand Awards were again three young PhD graduates from our faculty, while our students received additional 40 awards, commendations, and recognitions. The Krka Awards open new opportunities for young researchers to establish themselves in the industry as well as in research and institutions of higher education.

## PRIZNANJA IN NAGRADE

### Prof. dr. Irena Mlinarič-Raščan, prejemnica zlate plakete UL

Prof. dr. Irena Mlinarič-Raščan je mednarodno spoštovana in uveljavljena strokovnjakinja, njeno znanstveno delo je povzeto v več kot 2000 citatih. S svojim delom in vizijo je prispevala h kakovosti pedagoškega dela, k povezovanju akademskih raziskovalcev in industrijskih partnerjev. Je profesorica, mentorica, nacionalna direktorica v evropskem konzorciju raziskovalnih infrastruktur EATRIS in predsednica nacionalne komisije za UNESCO.

### Doc. dr. Damijan Knez, prejemnik svečane listine za mlade visokošolske učiteljice/učitelje ter visokošolske sodelavke/sodelavce

Doc. dr. Damijan Knez je soavtor 65 izvirnih znanstvenih člankov, štirih preglednih člankov in treh podeljenih mednarodnih patentov ter mentor/somentor pri doktorski disertaciji in 12 magistrskih nalogah. Je eden od vodilnih mlajših strokovnjakov v Sloveniji na področju farmacevtske kemije. Pri pedagoškem delu navdušuje študentke in študente s svojo energijo, zavzetostjo in strokovno kompetenco.

## RECOGNITIONS AND AWARDS

### Professor Irena Mlinarič-Raščan, recipient of the University of Ljubljana Gold Plaque

Professor Irena Mlinarič-Raščan is an internationally renowned and established expert whose scientific work is reflected in more than 2,000 citations. Through her work and vision, she has contributed to the quality of teaching and to strengthening cooperation between academic researchers and industrial partners. She is a professor, supervisor and national director in the European research infrastructure consortium EATRIS, and president of the national UNESCO commission.

### Associate professor Damijan Knez, recipient of the Special Commendation for Young Higher Education Teacher

Associate professor Damijan Knez is a (co-)author of 65 original scientific papers, four review articles, and three granted international patents. He has supervised or co-supervised one doctoral dissertation and twelve master's theses. He is one of Slovenia's leading young experts in pharmaceutical chemistry. In his teaching, he inspires students with his energy, dedication, and professional competence.

### Srebrno priznanje za inventivno rešitev na področju krožnega gospodarstva (SRIP)

Raziskovalke s Katedre za farmacevtsko tehnologijo, doc. dr. Katarina Bolko Seljak, doc. dr. Mirjam Gosenca Matjaž in prof. dr. Mirjana Gašperlin, so v letu 2024 prejele srebrno priznanje Strateško razvojno-inovacijskega partnerstva (SRIP) za izjemen prispevek k farmacevtski inovaciji. Nagrajena inovacija z naslovom *Hidrogeli na osnovi nanoceluloze za tvorbo dermalnih filmov za napredno zdravljenje atopijskega dermatitisa* predstavlja pomemben korak v razvoju novih terapevtskih pristopov za zdravljenje kože.

### Asist. Dr. Jaka Dernovšek, prejemnik Preglove nagrade za izjemno doktorsko delo

Dr. Jaka Dernovšek je razvil in sintetiziral več kot 200 biološko aktivnih spojin, ki zavirajo protein toplotnega šoka Hsp90, ki sodeluje pri razvoju rakavih celic. Njegove najboljše spojine so pokazale močno protitumorsko delovanje v nanomolarnem območju na rakavih celičnih linijah ter obetavne rezultate v mišjih in ribjih modelih raka. S svojim delom je tako pomembno prispeval k razvoju zdravil, ki zavirajo Hsp90, ne da bi sprožila zaščitni odziv celic. Mentor: prof. dr. Tihomir Tomašič, somentor: prof. dr. Nace Zidar.

### Silver Award for an Innovative Solution in the Field of Circular Economy (SRIP)

Researchers from the Department of Pharmaceutical Technology: assistant professor Katarina Bolko Seljak, assistant professor Mirjam Gosenca Matjaž and professor Mirjana Gašperlin, received the 2024 Silver Award of the Strategic Research and Innovation Partnership (SRIP) for an outstanding contribution to pharmaceutical innovation. Their award-winning innovation, "Nanocellulose-based hydrogels for forming dermal films for advanced treatment of atopic dermatitis," represents an important step in the development of new therapeutic approaches for skin treatment.

### Dr. Jaka Dernovšek, recipient of the Pregl Award for Outstanding Doctoral Disertation

Dr. Jaka Dernovšek developed and synthesized more than 200 biologically active compounds that inhibit the heat shock protein Hsp90, which plays a role in cancer cell development. His most effective compounds demonstrated strong antitumour activity in the nanomolar range in cancer cell lines, as well as promising results in mouse and zebrafish cancer models. His work has significantly contributed to the development of Hsp90 inhibitors that do not trigger the cells' protective response. Supervisor: Professor Tihomir Tomašič; Co-supervisor: Associate professor Nace Zidar.

**Dr. Črt Dragar, prejemnik velike Krkine nagrade  
za raziskovalno delo, 54. Krkine nagrade**

Dr. Črt Dragar deluje na področju farmacevtske nanotehnologije, predvsem ga zanimajo nanodostavni sistemi. Njegova raziskovalna naloga je pomemben del v mozaiku znanja, ki je potrebno za zagotavljanje varnosti, učinkovitosti in kakovosti magnetnih nanodelcev za uporabo v biomedicini, med drugim za sočasno diagnostiko in zdravljenje rakavih bolezni. Mentorica: prof. dr. Petra Kocbek, somentor: doc. dr. Slavko Kralj.

**Dr. Maša Sterle, prejemnica velike Krkine nagrade za raziskovalno delo, 54. Krkine nagrade**

Dr. Maša Sterle se ukvarja z načrtovanjem in sintezo novih protibakterijskih učinkovin. Pri dolgotrajnem zdravljenju okužb bi nove spojine pomenile veliko prednost, saj ne prispevajo k razvoju splošne bakterijske odpornosti, poleg tega pa ne zavirajo rasti bakterij, ki tvorijo našo mikroflore. Njene raziskave so pomembne za razvoj novih razredov antibiotikov. Mentorica: prof. dr. Anamarija Zega, somentor: doc. dr. Andrej Emanuel Cotman.

**Dr. Živa Zajec, prejemnica velike Krkine nagrade za raziskovalno delo, 54. Krkine nagrade**

Dr. Živa Zajec združuje farmacevtsko kemijo in biološko vrednotenje, pri čemer se osredotoča na analizo celic in proteinov. Navdušenje nad farmacevtsko kemijo jo vodi v iskanje novih spojin za zdravljenje rakavih bolezni. Osredotoča se na protein toplotnega šoka 90, ki je obetaven cilj za razvoj novih protitumornih zdravil. Mentor: prof. dr. Tihomir Tomašič, somentorica: izr. prof. dr. Martina Gobec.

Dr. Črt Dragar, recipient of the Grand Krka Award for Research, 54th Krka Awards

Dr. Črt Dragar works in the field of pharmaceutical nanotechnology, with a focus on nano-delivery systems. His research project forms an important part of the knowledge base needed to ensure the safety, efficacy, and quality of magnetic nanoparticles for biomedical applications, including combined diagnostics and treatment of cancer. Supervisor: Professor. Petra Kocbek; Co-supervisor: Assistant professor Slavko Kralj.

Dr. Maša Sterle, recipient of the Grand Krka Award for Research, 54th Krka Awards

Dr. Maša Sterle focuses on the design and synthesis of new antibacterial agents. For long-term infection treatment, the newly developed compounds represent a major advantage, as they do not contribute to general bacterial resistance and do not inhibit the growth of bacteria that form the human microbiota. Her research is important for the development of new classes of antibiotics. Supervisor: Professor Anamarija Zega; Co-supervisor: Assistant professor Andrej Emanuel Cotman.

Dr. Živa Zajec, recipient of the Grand Krka Award for Research, 54th Krka Awards

Dr. Živa Zajec combines pharmaceutical chemistry with biological evaluation, focusing on the analysis of cells and proteins. Her passion for pharmaceutical chemistry drives her search for new compounds for cancer treatment. Her research centres on heat shock protein 90, a promising target for the development of new antitumour drugs. Supervisor: Professor Tihomir Tomašič; Co-supervisor: Associate professor Martina Gobec.

**Nika Breznik, prejemnica univerzitetne Prešernove nagrade**

Nika Breznik je magistrirala leta 2023 na UL FFA. V nagrajenem magistrskem delu se je ukvarjala z opredelitvijo genetskega vzroka hipogonadotropnega hipogonadizma z uporabo sekvenciranja celotnega genoma. Mentorica: prof. dr. Katarina Trebušak Podkrajšek, somentorica: doc. dr. Magdalena Avbelj Stefaniya.

**Manca Jenko, prejemnica univerzitetne Prešernove nagrade**

Manca Jenko je magistrirala leta 2024 na UL FFA. V nagrajenem magistrskem delu je z uporabo ustreznih diferenciacijskih gojišč uspešno diferencirala celično linijo humanih oligodendrocitov HOG do zrelih oligodendrocitov in med tem spremljala ravni izražanja izooblik enolaze. Mentorica: izr. prof. dr. Anja Pišlar, somentorica: asist. Selena Horvat

**Mateja Terčič, prejemnica priznanja UL strokovnim sodelavkam/sodelavcem**

Delo Mateje Terčič, vodje raziskovalnega referata, pomembno prispeva k razvoju raziskovalne dejavnosti na Fakulteti za farmacijo Univerze v Ljubljani. Svoje znanje izpopolnjuje na univerzitetnih in mednarodnih izobraževanjih, k temu spodbuja sodelavce in je tudi vzor za ožji kolektiv. Profesionalnost, umirjenost in strokovnost so lastnosti, zaradi katerih jo sodelavke in sodelavci spoštujejo.

Nika Breznik, recipient of the University Prešeren prize for students

Nika Breznik completed her Master's degree in 2023 at the UL FFA. Her award-winning master's thesis focused on identifying the genetic cause of hypogonadotropic hypogonadism using whole-genome sequencing. Supervisor: Professor Katarina Trebušak Podkrajšek; Co-supervisor: Assistant professor Magdalena Avbelj Stefanija.

Manca Jenko, recipient of the University Prešeren prize for students

Manca Jenko completed her Master's degree in 2024 at the UL FFA. In her award-winning master's thesis, she successfully differentiated the human oligodendrocyte cell line HOG into mature oligodendrocytes using appropriate differentiation media and monitored isoform expression levels of enolase during the differentiation process. Supervisor: Associate professor Anja Pišlar; Co-supervisor: Assistant Selena Horvat.

Mateja Terčič, recipient of the UL Award for the Associates

The work of Ms. Mateja Terčič, Head of the Research office, significantly contributes to the development of research activities at the Faculty of Pharmacy, University of Ljubljana. She is continuously enhancing her expertise and skills through university and international training programs, encouraging and setting an example for her colleagues. Her professionalism, calmness, and competence have earned her the respect of coworkers.

**Mateja Matjaž in Katja Perc, prejemnici priznanja UL strokovnim sodelavkam/sodelavcem**

Mateja Matjaž in Katja Perc sta ob prehodu v novo delovno okolje poslovno-informacijskega sistema SAP s svojim strokovnim znanjem pomembno prispevali k oblikovanju izjemno heterogenega sistema nabavnih skupin na Fakulteti za farmacijo Univerze v Ljubljani. Aktivno sta sodelovali pri vzpostavitvi sistema in pozneje nudili nesebično podporo vsem uporabnikom pri razumevanju in uporabi. Njun prispevek je neprecenljiv.

**Mateja Matjaž and Katja Perc, recipients of the UL Award for the Associates**

With the transition to the new SAP business-information system, Mateja Matjaž and Katja Perc made a significant contribution through their expertise in the development of a highly heterogeneous procurement group system at the Faculty of Pharmacy, University of Ljubljana. They were actively involved in establishing the system and later provided selfless support to all users in understanding and using it. Their contribution is invaluable.

**NOVOIZVOLJENI REDNI PROFESORJI UL FFA V LETU 2024**



**prof. dr. MOJCA KEREK KOS**

je diplomirala leta 1999 in doktorirala leta 2003 na Univerzi v Ljubljani, Fakulteti za farmacijo (UL FFA). Od leta 1999 je zaposlena na Katedri za biofarmacijo in farmakokinetiko, naprej kot mlada raziskovalka, nato na asistent-skem mestu in od leta 2017 na učiteljskem mestu.

Njeno raziskovalno delo vključuje pristope za optimizacijo zdravljenja z zdravili tako na področju klinične farmakokinetike (terapevtsko spremljanje koncentracij zdravilnih učinkovin, populacijsko farmakokinetično modeliranje) kot klinične farmacije (vrednotenje izzivov v farmakoterapiji bolnikov ter vloge farmacevtskih storitev). Del raziskovalnih aktivnosti usmerja tudi v proučevanje vpliva bio-

**NEWLY APPOINTED FULL PROFESSORS AT UL FFA IN 2024**

**Professor MOJCA KEREK KOS**

Professor Mojca Kerec Kos graduated in 1999 and obtained her PhD in 2003 at the University of Ljubljana, Faculty of Pharmacy (UL FFA). She has been working in the Department of Biopharmaceutics and Pharmacokinetics since 1999, first as a young researcher, then as an assistant, and since 2017 as an associate professor.

Her research includes approaches to optimise drug therapy in both clinical pharmacokinetics (therapeutic drug monitoring, population pharmacokinetic modelling) and clinical pharmacy (assessment of challenges in patient pharmacotherapy and the role of pharmaceutical services). Part of her research is also focused on investigating

adhezivnih polimerov na permeabilnost epitelija sečnega mehurja. Svojo znanstveno-raziskovalno usposobljenost izkazuje s številnimi znanstvenimi publikacijami (>90), njihovo mednarodno odmevnost pa s citati (več kot 500 citatov, h indeks 13). Je področna urednica znanstvene revije Acta Pharmaceutica in recenzentka številnih mednarodnih znanstvenih revij.

Vodila je več tržnih projektov s partnerji iz farmacevtske industrije, vključujoč klinične raziskave bioekvivalence ter projekte v okviru biofarmacevtskega vrednotenja zdravil.

Njeno pedagoško delo vključuje predavanja in vaje pri predmetih s področja biofarmacije in farmakokinetike na enovitem magistrskem študijskem programu Farmacija, na magistrskih programih Industrijska farmacija in Laboratorijska biomedicina, na univerzitetnem programu Kozmetologija in podiplomskem programu Biomedicina, smer farmacija. Predava tudi pri predmetu Zdravstveno varstvo otrok – Neonatologija na visokošolskem strokovnem študijskem programu Babištvo na UL Zdravstveni fakulteti. Povprečna študentska ocena njenega pedagoškega dela je v zgornjih 10 % ocenjevalne lestvice na fakulteti. Do tega trenutka je bila mentorica pri več kot 80 diplomskih oz. magistrskih nalogah, pri treh zaključenih doktoratih znanosti in dveh, ki sta še v teku, ter glavna mentorica štirim zaključenim specializacijam s področja lekarniške ali klinične farmacije.

Na UL FFA je koordinatorica študijskega programa Farmacija ter vodja Kluba alumnov. Je tudi članica Upravnega odbora UL FFA in Komisije za strokovna vprašanja. Do letošnjega študijskega leta je bila tudi tutor učitelj koordinator.

the effects of bioadhesive polymers on the permeability of the urothelium. She demonstrates her scientific research expertise through numerous scientific publications (>90), and their citations (over 500 citations, h-index 13). She is a section editor of the journal Acta Pharmaceutica and a reviewer for numerous international journals.

She has led several projects with the pharmaceutical industry, including clinical bioequivalence studies and projects in the field of biopharmaceutical drug evaluation.

Her pedagogic work includes lectures and practical classes in subjects related to biopharmacy and pharmacokinetics within the uniform Master's degree study program Pharmacy, the Master's degree programs Industrial Pharmacy and Laboratory Biomedicine, the undergraduate degree program Cosmetology, and the postgraduate program Biomedicine. She also lectures on the study program Midwifery at the UL Faculty of Health Sciences. Her average student evaluation places her in the top 10% of the faculty's teaching performance scale. To date, she has supervised more than 80 bachelor's and master's theses, 3 completed and 2 ongoing PhD theses. She is also the supervisor of 4 completed specialisations in community or clinical pharmacy.

At UL FFA, she is the coordinator of the study program Pharmacy, head of the Alumni Club, member of the Governing Board and the Professional Affairs Committee. Until this academic year, she was also the teacher-tutor coordinator.

Mednarodno je gostovala na Farmacevtsko-biokemijski fakulteti Univerze v Zagrebu, kjer je opravljala pedagoško delo s področja klinične farmacije. Kot vabljen predavateljica je sodelovala na domačih in mednarodnih konferencah. Sodelovala je tudi pri organizaciji domačih in mednarodnih konferenc, strokovnih izobraževanj ter delavnic. Je aktivna članica Slovenskega farmacevtskega društva ter predsednica Razširjenega strokovnega kolegija za lekarniško farmacijo na Ministrstvu za zdravje. Leta 2022 je prejela Minaříkovo priznanje Slovenskega farmacevtskega društva za zasluge pri razvoju farmacevtske stroke.

Leta 2003 je bila prvič izvoljena v naziv asistentke, leta 2008 v naziv docentke in leta 2015 v naziv izredne profesorice za področje biofarmacija in farmakokinetika. Habilitacijska komisija UL je v februarju 2024 podala soglasje k njeni izvolitvi v naziv redne profesorice za področje biofarmacije in farmakokinetike.

In 2019, she was a lecturer at the University of Zagreb, Faculty of Pharmacy and Biochemistry, where she taught clinical pharmacy. As an invited lecturer, she has contributed to national and international conferences and helped organise scientific and professional conferences and workshops. She is an active member of the Slovenian Pharmaceutical Society and chair of the Extended Professional Board for Community Pharmacy at the Ministry of Health. In 2022, she received the Minařík Award of the Slovenian Pharmaceutical Society for her contributions to the development of the pharmaceutical profession.

In 2003, she was first elected as an assistant, in 2008 as an assistant professor, and in 2015 as an associate professor in the field of Biopharmacy and Pharmacokinetics. In February 2024, she was appointed Full Professor of Biopharmacy and Pharmacokinetics by the UL Habilitation Committee.



prof. dr. PETRA KOCBEK

je diplomirala leta 2003 in doktorirala leta 2008 na Univerzi v Ljubljani, Fakulteti za farmacijo (UL FFA). Za doktorsko disertacijo je prejela Krkino nagrado za posebne dosežke na področju raziskovalnega dela in za njeno odmevnost zlati znak Jožefa Stefana. Na UL FFA, Katedri za farmacevtsko tehnologijo je zaposlena od leta 2023, in sicer naprej kot mlada raziskovalka, nato kot asistentka z doktoratom in od leta 2011 kot visokošolska učiteljica.

Professor PETRA KOCBEK

Professor Petra Kocbek graduated in 2003 and obtained a doctorate in 2008 from the University of Ljubljana, Faculty of Pharmacy (UL FFA). For her doctoral dissertation, she received the Krka Prize for outstanding research achievements and the Jožef Stefan Gold Emblem award for outstanding contributions made to science in doctoral theses. She has been employed at UL FFA, Department of Pharmaceutical Technology, since 2023, first as a young researcher, then as an assistant with a doctorate, and since 2011 as a university teacher.

Njeno raziskovalno delo vključuje načrtovanje, izdelavo in vrednotenje različnih nanodostavnih sistemov za vnos nizkomolekularnih zdravilnih učinkovin in biofarmacevtikov. Ukvarja se z nanotehnološkimi pristopi za povečanje topnosti in hitrosti raztapljanja slabo vodotopnih zdravilnih učinkovin, kar izboljša njihovo biološko uporabnost in omogoča doseganje terapevtskih učinkov. Razvija tudi napredne dostavne sisteme za ciljano zdravljenje, kot so magnetno odzivni nanodostavni sistemi in imunonodelci, ki omogočajo dostavo zdravilnih učinkovin na tarčno mesto s pasivnim ali aktivnim ciljanjem.

Izsledke raziskovalnega dela je v soavtorstvu objavila v več kot 60 izvirnih in preglednih znanstvenih člankih v za stroko pomembnih mednarodnih in domačih znanstvenih revijah. Odmevnost njenih raziskovalnih rezultatov dokazujejo številni citati njenih znanstvenih del. Z več kot 2700 citati v zadnjih desetih letih in s h-indeksom 29 sodi med najbolj citirane raziskovalce na področju farmacije v Sloveniji. Je tudi recenzentka številnih mednarodnih znanstvenih revij. S svojim znanjem s področja farmacevtske (nano)tehnologije aktivno sodeluje pri različnih projektih ARIS, enega je tudi uspešno vodila.

Njeno pedagoško delo vključuje izvedbo predavanj in seminarjev s področja farmacevtske (nano)tehnologije in kozmetologije na enovitem magistrskem študijskem programu Farmacija, na magistrskem študijskem programu Industrijska farmacija in na univerzitetnem študijskem programu Kozmetologija. Je koordinatorica modula Farmacevtska nanotehnologija in nanozdravila v okviru predmeta Farmacevtske znanosti na podiplomskem študijskem programu Biomedicina. Do danes je bila mentorica pri 55 in somentorica pri 10 zaključenih magistrskih in diplomskih nalogah ter mentorica pri treh in somentorica pri dveh zaključenih doktoratih znanosti.

Her research work includes the design, manufacture, and evaluation of various nanodelivery systems for the administration of low-molecular-weight drugs and biopharmaceuticals. She investigates nanotechnological approaches to increase the solubility and dissolution rate of poorly water-soluble drugs, which improves their bioavailability and enables therapeutic effects to be achieved. She also develops advanced delivery systems for targeted therapy, such as magnetically responsive nanodelivery systems and immunonanoparticles, successfully leading the development of one of them.

She has co-authored more than 60 original and review scientific articles in renowned national and international scientific journals. The impact of her research is evident from the numerous citations of her articles. With over 2,700 citations in the last ten years and an h-index of 29, she is one of the most cited researchers in the field of pharmacy in Slovenia. She is also a reviewer for numerous international scientific journals. With her knowledge in the field of pharmaceutical (nano)technology, she is actively involved in various ARIS projects, one of which she has successfully led and brought to completion.

She delivers lectures and seminars on pharmaceutical (nano)technology and cosmetology as part of the integrated Master's degree programme in Pharmacy, the Master's degree programme in Industrial Pharmacy and the university programme in Cosmetology. She coordinates the Pharmaceutical nanotechnology and nanomedicine module in Biomedicine doctoral study programme. To date, she has supervised 55 students and co-supervised 10 students working on their diploma and master's degree theses, and has also supervised 3 doctoral students and co-supervised 2 doctoral students.

Od leta 2017 je članica Senata UL FFA in od leta 2021 članica Komisije za doktorski študij UL FFA, v preteklosti pa je bila tudi članica Habilitacijske komisije UL FFA in Komisije za študijsko področje UL FFA.

V letu 2022 je gostovala na Farmacevtsko-biokemijski fakulteti Univerze v Zagrebu, kjer je opravljala predvsem raziskovalno delo s področja farmacevtske nanotehnologije. Bila je tudi vabljen predavateljica na različnih domačih in mednarodnih konferencah. Je članica Slovenskega farmacevtskega društva in članica skupine strokovnjakov za pripravo Formulariuma Slovenicuma – slovenskega dodatka k Evropski farmakopeji. Leta 2014 je prejela svečano listino mladim visokošolskim učiteljem in sodelavcem za izjemne pedagoške in raziskovalne dosežke na UL.

Since 2017, she has been a member of the Senate of UL FFA and, since 2021, a member of the Doctoral Study Committee at UL FFA. Previously, she was also a member of the Habilitation Committee and the Study Affairs Committee at UL FFA.

In 2022, she was a visiting researcher at the University of Zagreb, Faculty of Pharmacy and Biochemistry, where she mainly conducted research in the field of pharmaceutical nanotechnology. She has also been an invited speaker at various domestic and international conferences. She is a member of the Slovenian Pharmaceutical Society and a member of the group of experts for the preparation of Formularium Slovenicum – the Slovenian supplement to the European Pharmacopoeia. In 2014, she received Special Commendation for young higher education teachers and associates for exceptional pedagogical and research achievements at the University of Ljubljana.



prof. dr. MATEJ SOVA, mag. farm.

je diplomiral leta 2004 in doktoriral leta 2009 na UL Fakulteti za farmacijo. Za doktorsko disertacijo je prejel Krkino nagrado. Od oktobra 2004 je zaposlen na Katedri za farmacevtsko kemijo, naprej kot mladi raziskovalec, nato kot asistent z doktoratom.

Njegovo raziskovalno delo vključuje načrtovanje, sintezo in vrednotenje modulatorjev Tollu podobnih receptorjev (TLR), ki predstavljajo obetavno tarčo pri razvoju učinkovin za zdravljenje raka, infekcij, astme, alergij in avtoimunskih bolezni. Nove agoniste in antagoniste TLR odkriva s pomočjo računalniško podprtih metod, s sintezo analogov pa pridobiva informacije o odnosu med strukturo in delovanjem. Ukvarja se tudi z razvojem zaviralcev različnih encimov, na primer indolamin 2,3-dioksidaze. Njegove ekspertize segajo tudi na področje organske kemije, predvsem na področje kataliziranih reakcij spajanja za tvorbo C-C vezi.

Professor Matej Sova

Professor Matej Sova graduated in 2004 and received his PhD from the UL Faculty of Pharmacy in 2009. He was awarded the Krka Prize for his doctoral dissertation. He has been working at the Department of Pharmaceutical Chemistry since October 2004, first as a young researcher and then as an assistant with a PhD.

His research focuses on the design, synthesis and evaluation of modulators of Toll-like receptors (TLRs), which represent a promising target for the development of drugs for the treatment of cancer, infections, asthma, allergies and autoimmune diseases. He discovers novel agonists and antagonists of TLRs by using computational methods and explores structure-activity relationships by synthesizing analogues. He is also involved in the development of inhibitors of various enzymes, such as indoleamine 2,3-dioxygenase. His expertise also extends to the field of organic chemistry, particularly in the field of catalysed coupling reactions for the C-C bond formation.

Izsledke raziskovalnega dela je objavil v več kot 50 izvirnih in preglednih znanstvenih člankih v pomembnih mednarodnih in domačih znanstvenih revijah. Odmevnost njegovih raziskovalnih rezultatov pa dokazuje več kot 2000 citatov v zadnjih desetih letih in h-indeks 20. Je tudi soavtor 3 mednarodnih in 2 slovenskih patentov. Kot recenzent sodeluje pri številnih tujih znanstvenih revijah, bil pa je tudi urednik pri revijah *Frontiers in Pharmacology* in *Molecules*.

Kot vodja je sodeloval pri 5 bilateralnih projektih, uspešno pa je vodil tudi temeljni raziskovalni projekt ARIS z naslovom Razvoj novih nizkomolekularnih modulatorjev Tollu podobnih receptorjev 7 in 8 za imunoterapijo raka. Sodeloval je tudi pri številnih raziskovalnih projektih s farmacevtsko industrijo, za raziskovalno delo v okviru projekta pa je leta 2016 dobil nacionalno zlato priznanje Gospodarske zbornice Slovenije za najboljšo inovacijo.

Njegovo pedagoško delo vključuje izvedbo laboratorijskih vaj, seminarjev in predavanj pri Farmacevtski kemiji 1 in 3 ter izvedbo predavanj pri predmetu Načrtovanje in sinteza učinkovin na enovitem magistrskem študijskem programu Farmacija, na magistrskem študijskem programu Industrijska farmacija pa je vodja vaj pri predmetu Farmacevtska kemija.

Do danes je bil mentor pri 47 in somentor pri 5 zaključenih magistrskih in diplomskih nalogah ter mentor pri enem in somentor pri dveh doktoratih znanosti. Bil je tudi mentor pri treh fakultetnih Prešernovih nagradah in štirih Krkinih nagradah. Leta 2019 je bil predsednik področne komisije za naravoslovje pri Prešernovih nagradah študentom Univerze v Ljubljani, sodeloval pa je tudi pri poletni šoli Kariernih centrov za dijake in poletni raziskovalni šoli Kemijskega inštituta.

He has published the results of his research in more than 50 peer-reviewed original or review articles in important international and national scientific journals. The importance of his research findings is evidenced by more than 2000 citations in the last ten years and an h-index of 20. He is also a co-author of 3 international and 2 Slovenian patents. He works as a reviewer for numerous international scientific journals and was also an editor for the journals *Frontiers in Pharmacology* and *Molecules*.

As a principal investigator, he has led 5 bilateral projects and the ARIS basic research project entitled "Development of new small molecule modulators of Toll-like receptors 7 and 8 for cancer immunotherapy". He also participated in numerous research projects with the pharmaceutical industry and in 2016 he received the National Golden Award of the Slovenian Chamber of Commerce for the best innovation for his research work under the project.

His pedagogical work includes laboratory practice, seminars and lectures in Pharmaceutical Chemistry 1 and 3 as well as lecturing in the course Design and synthesis of drugs in the uniform Master's degree study programme Pharmacy, and in the postgraduate program of Industrial pharmacy he has been the head of the practical course in Pharmaceutical Chemistry.

To date, he has supervised 47 Master's and diploma theses and co-supervised 5, as well as supervised one doctoral thesis and co-supervised two. He was also a supervisor for 3 Faculty's Prešeren Awards and 4 Krka Prizes. In 2019, he was the chairman of the expert committee for natural sciences for University of Ljubljana Prešeren Awards. He also participated in the Career Centre's summer school for high school students and the National Institute of Chemistry's summer research school.

V okviru podoktorskega izobraževanja je gostoval na Univerzi v Leedsu, School of Chemistry, pri prof. Colinu Fishwicku, v okviru Erasmus+ financiranja mobilnosti učiteljev pa je obiskal in predaval na univerzi Sapienza v Rimu. Bil je tudi predavatelj na mednarodnih konferencah, kratka predavanja je imel tudi na univerzi v Moskvi in univerzi v Minnesoti.

Leta 2005 je bil prvič izvoljen v naziv asistenta, leta 2012 v naziv docenta in leta 2019 v naziv izrednega profesorja za področje farmacevtske kemije. Habilitacijska komisija UL je septembra 2024 podala soglasje k njegovi izvolitvi v naziv rednega profesorja za področje farmacevtske kemije.

As part of his postdoctoral training, he was a guest at the University of Leeds, School of Chemistry, with Prof. Colin Fishwick, and as part of the Erasmus+ teaching mobility, he visited and lectured at Sapienza University of Rome. He has also delivered invited lectures at international conferences and given short lectures at the University of Moscow and the University of Minnesota.

He was first elected to the title of assistant in 2005, assistant professor in 2012 and associate professor in the field of pharmaceutical chemistry in 2019. In September 2024, the habilitation committee of the University of Ljubljana confirmed his election as a full professor in the field of pharmaceutical chemistry.



prof. dr. URBAN ŠVAJGER, mag. farm.

je diplomiral leta 2004 in doktoriral leta 2010 na UL Fakulteti za farmacijo. Za diplomsko delo in doktorsko disertacijo je prejel Krkino nagrado za posebne dosežke. Od 2014 je zaposlen na Zavodu RS za transfuzijsko medicino kot vodja Centra za razvoj naprednih zdravljenj. Od doktorata redno sodeluje s Fakulteto za farmacijo pri raziskovanju in kot visokošolski učitelj pri 5 predmetih s področja imunologije ter zdravil za napredno zdravljenje.

Professor Urban Švajger

Professor Urban Švajger graduated (2004) and received his PhD (2010) from the Faculty of Pharmacy, University of Ljubljana. He received the Krka Award for Special Achievements for his diploma thesis and doctoral dissertation. Since 2014, he has been employed at the Institute of Transfusion Medicine of the Republic of Slovenia, as the head of the Center for the Development of Advanced Therapies. Since his doctorate, he has been regularly collaborating with the Faculty of Pharmacy, as a researcher and as a university teacher in 5 subjects in the field of immunology and advanced therapy medicinal products.

Raziskuje celično imunologijo, imunobiologijo dendritičnih celic, tumorsko imunologijo ter biologijo matičnih celic. Ukvarja se z odkrivanjem imunoloških mehanizmov, ki so podlaga supresiji oz. aktivaciji pridobljenega imunskega odziva. Na področju biologije matičnih celic je osredotočen na prepoznavanje mehanizmov, ki omogočajo optimizacijo in usmeritev njihovega regenerativnega delovanja v kontekstu specifičnih patologij. Na predkliničnem nivoju med drugim razvija celične dostavne sisteme za ciljno dostavo proti-tumorskih genov. Ključno področje je klinična translacija celičnih imunoterapij in regenerativnih zdravljenj.

Objavil je >70 znanstvenih prispevkov; ima več kot 2000 citatov in h-indeks 25. Je recenzent ter član uredništev Journal of Translational Medicine, Frontiers in Immunology in International Immunopharmacology. Sodeloval je pri 18 projektih ARIS, enega je vodil.

Pedagoško deluje na programih Farmacija, Laboratorijska biomedicina, Kozmetologija in Industrijska farmacija. Bil je (so)mentor pri 26 magistrskih/diplomskih delih, mentor pri dveh in somentor pri štirih doktoratih.

Leta 2017 je gostoval na Inštitutu za klinično imunologijo in transfuzijsko medicino (Univ. Giessen & Marburg), raziskoval regulatorne T1 limfocite in GMP-proizvodnjo mezenhimskih stromalnih celic. Je vabljen predavatelj in član več strokovnih društev. Od leta 2024 je član ekspertne skupine za napredna zdravljenja pri European Blood Alliance.

Leta 2011 je bil izvoljen v naziv docenta in leta 2019 v naziv izrednega profesorja za področje farmacevtske biokemije. Habilitacijska komisija UL je v maju 2024 podala soglasje k njegovi izvolitvi v naziv rednega profesorja za področje farmacevtske biokemije.

He researches cellular immunology, immunobiology of dendritic cells, tumour immunology and stem cell biology. He is engaged in the discovery of immunological mechanisms that underlie the suppression or activation of the acquired immune response. In the field of stem cell biology, he is focused on identifying mechanisms that enable the optimization and direction of their regenerative function in the context of specific pathologies. At the pre-clinical level, he develops, among other things, cellular delivery systems for targeted delivery of anti-tumour genes. The key area is the clinical translation of cellular immunotherapies and regenerative treatments.

He has published >70 scientific papers, has more than 2000 citations and an h-index of 25. He is a reviewer and member of the editorial boards of the *Journal of Translational Medicine*, *Frontiers in Immunology* and *International Immunopharmacology*. He has participated in 18 ARIS projects, leading one.

He works as a teacher in the Pharmacy, Laboratory Biomedicine, Cosmetology and Industrial Pharmacy programs. He was (co)supervisor for 26 Master's/diploma theses, supervisor for two and co-supervisor for four doctorates.

In 2017, he was a guest at the Institute of Clinical Immunology and Transfusion Medicine (Univ. Giessen & Marburg), researching regulatory Tr1 lymphocytes and GMP-production of mesenchymal stromal cells. He is an invited lecturer and member of several professional societies. Since 2024 he has been a member of the expert group for advanced therapies at the European Blood Alliance.

In 2011 he was elected to the title of assistant professor and in 2019 to the title of associate professor in the field of pharmaceutical biochemistry. In May 2024, the Habilitation Commission of the University of Ljubljana approved his election to the title of full professor in the field of pharmaceutical biochemistry.



prof. dr. TOMAŽ VOVK

Prof. dr. Tomaž Vovk je diplomiral leta 1997 in doktoriral leta 2003 na Fakulteti za farmacijo Univerze v Ljubljani. Od leta 2001 je redno zaposlen na Katedri za biofarmacijo in farmakokinetiko, kjer opravlja raziskovalno in pedagoško delo.

Raziskovalno je aktiven na področju biofarmacije in farmakokinetike. Njegova ekspertiza vključuje razvoj orodij za individualizacijo zdravljenja na osnovi terapevtskega spremljanja koncentracij zdravilnih učinkovin in proučevanje vpletenosti oksidativnega stresa v fiziološke in patološke procese v živalih in ljudeh.

Professor Tomaž Vovk

Professor Tomaž Vovk graduated in 1997 and obtained his PhD in 2003 from the Faculty of Pharmacy, University of Ljubljana. Since 2001, he has been employed at the Department of Biopharmaceutics and Pharmacokinetics, where he is engaged in both research and teaching.

His research activities focus on biopharmaceutics and pharmacokinetics. His expertise includes the development of tools for individualized therapy based on therapeutic drug monitoring, and the investigation of oxidative stress involvement in physiological and pathological processes in animals and humans.

Svojo znanstveno-raziskovalno usposobljenost izkazuje s številnimi znanstvenimi publikacijami (>50), njihovo mednarodno odmevnost pa s citati (več kot 1000 citatov, Scopus). Je recenzent številnih mednarodnih znanstvenih revij in tudi član v domačih uredniških odborih revij. Aktivno sodeluje v okviru raziskovalnih projektov, ki jih financira Javna agencija za znanstvenoraziskovalno in inovacijsko dejavnost Republike Slovenije. Znanstveno objavo, v kateri je sodeloval kot soavtor, je javna agencija v letu 2021 uvrstila med odlične prispevke v sklopu promocije znanosti Odlični v znanosti. Zelo intenzivno sodeluje tudi s farmacevtsko industrijo, kjer je kot vodja oz. raziskovalec sodeloval pri 13 projektih.

Od leta 2001 sodeluje pri izvedbi vaj in predavanj pri predmetih s področja biofarmacije in farmakokinetike na Enovitem magistrskem programu Farmacija, na magistrskem programu Industrijska farmacija, magistrskem programu Laboratorijska biomedicina, na univerzitetnem programu Kozmetologija in podiplomskem programu Biomedicina, smer farmacija ter specializaciji iz Klinične farmacije. Več kot 10 let je bil skrbnik študijskega programa Enovit magistrski študij program Farmacija, ki je največji program na fakulteti. Je tudi član številnih komisij na Fakulteti za farmacijo, Univerzi v Ljubljani in Ministrstvu za zdravje Republike Slovenije.

Do leta 2024 je bil mentor oz. somentor pri več kot 70 diplomskih oziroma magistrskih nalogah na programih Enovit magistrski študij program Farmacija, magistrskem programu Industrijska farmacija in Laboratorijska biomedicina, mentor in somentor pri 5 doktoratih znanosti ter glavni mentor pri 5 specializacijah iz Klinične farmacije. Pod njegovim mentorstvom so študenti prejeli Prešernovo nagrado in Krkine nagrade.

He demonstrates his scientific competence through numerous publications (> 50), and their international impact is reflected in more than 1,000 citations (Scopus). He serves as a reviewer for several international scientific journals and is a member of editorial boards of domestic journals. He actively participates in research projects funded by the Slovenian Research and Innovation Agency. In 2021, a scientific publication he co-authored was recognized as an outstanding contribution in the national science promotion initiative "Odlični v znanosti". He also collaborates intensively with the pharmaceutical industry, having led or participated in 13 research projects.

Since 2001, he has been involved in lectures and practical classes in the fields of biopharmaceutics and pharmacokinetics across various study programs: Uniform Master's study programme Pharmacy, the Master's study program Industrial Pharmacy, the Master's study program Laboratory Biomedicine, the University study programme Cosmetology, the postgraduate doctoral study program Biomedicine (field Pharmacy), and the specialization in Clinical Pharmacy. For over 10 years, he served as the coordinator of the Uniform Master's study programme Pharmacy, the largest program at the faculty. He is also a member of numerous committees at the Faculty of Pharmacy, the University of Ljubljana, and the Ministry of Health of the Republic of Slovenia.

By 2024, he had supervised or co-supervised more than 70 diploma and Master's theses. He also served as supervisor or co-supervisor for 5 doctoral dissertations and as principal supervisor for 5 Clinical Pharmacy specializations. Students under his supervision have received the Prešeren Award and Krka Awards.

Mednarodno je gostoval na Alma Mater Studiorum Univerzi v Bologni, Fakulteti za farmacijo v laboratoriju za farmakološke in toksikološke raziskave v Italiji, kjer je opravljal raziskovalno delo in sodeloval v pedagoškem procesu. Kot vabljen predavatelj je sodeloval na več domačih in mednarodnih konferencah ter univerzah. Sodeluje tudi pri organizaciji domačih in mednarodnih konferenc, strokovnih izobraževanj ter delavnic. Je dolgoletni predsednik organizacijskega odbora največjega letnega simpozija Slovenskega farmacevtskega društva. Za svoje delo je leta 2017 prejel Minařikovo priznanje, ki ga podeljuje Slovensko farmacevtsko društvo.

Leta 2001 je bil prvič izvoljen v naziv asistenta, leta 2009 v naziv docenta in leta 2014 v naziv izrednega profesorja za področje biofarmacije in farmakokinetike. Habilitacijska komisija Univerze v Ljubljani je v februarju 2024 podala soglasje k njegovi izvolitvi v naziv rednega profesorja za področje biofarmacije in farmakokinetike.

Internationally, he has been a visiting researcher and lecturer at Alma Mater Studiorum – University of Bologna, at the Faculty of Pharmacy. He has been an invited speaker at numerous national and international conferences and universities. He also contributes to the organization of national and international conferences, professional training events, and workshops. He has been a long-standing president of the organizing committee of the largest annual symposium of the Slovenian Pharmaceutical Society. In 2017, he received the Minařik Award from the Slovenian Pharmaceutical Society for his expert contributions.

In 2001, he was first elected to the academic title of assistant. In 2009, he was promoted to assistant professor, and in 2014 to associate professor in the field of Biopharmaceutics and Pharmacokinetics. In February 2024, the Habilitation Committee of the University of Ljubljana approved his election to the title of full professor in the same field.

## SLAVIMO ZNANOST – RAZISKOVALNI DAN UL FFA

V okviru Tedna Univerze smo 4. 12. 2024 organizirali Raziskovalni dan UL FFA. Dogodek je bil namenjen osvetlitvi in počastitvi izjemnih dosežkov fakultete. Jutranji simpozij je s predavanjem odprla lanskoletna dobitnica Zoisovega priznanja – prof. dr. Lucija Peterlin Mašič. Sledile so predstavitev ključnih izsledkov znanstveno-raziskovalnih dosežkov letošnjih prejemnic in prejemnikov dekanovih nagrad. Popoldne je potekal svečani del, ki so se ga udeležili gostje iz gospodarstva, javnih zavodov, društev in drugih ustanov. Po slavnostnem predavanju nagrajenca za življenjsko delo, prof. dr. Boruta Božiča, je sledila podelitev nagrad, priznanj in pohval UL FFA, ki jih fakulteta podeljuje izstopajočim posameznikom, katerih delo pomembno zaznamuje znanstveni prostor ali vpliva na ugled in kakovost fakultete.



## CELEBRATING SCIENCE - UL FFA RESEARCH DAY

As part of University Week, the UL FFA Research Day was held on 4 December 2024. The event was dedicated to highlighting and celebrating the Faculty's outstanding achievements. The morning symposium opened with a lecture by last year's Zois Award recipient, professor Lucija Peterlin Mašič. This was followed by presentations of key findings from the scientific research of this year's recipients of the Dean's Awards. In the afternoon, a formal ceremony took place, attended by guests from the industry, public institutions, associations, and other organizations. Following the honorary lecture delivered by the Lifetime Achievement Award recipient, professor Borut Božič, the ceremony continued with the presentation of UL FFA awards, recognitions, and commendations, given to exceptional individuals whose work significantly shapes the scientific landscape or contributes to the reputation and quality of the Faculty.

Fotografija: Prejemnik nagrade za življenjsko delo prof. dr. Borut Božič / Photo: Recipient of the life-time achievement award professor Borut Božič

**Priznanje UL FFA za življenjsko delo je prejel  
prof. dr. Borut Božič**

Prof. dr. Borut Božič je priznan strokovnjak na področju klinične biokemije, predan pedagog, raziskovalec in vodstveni delavec. Je tudi ključni steber slovenske strokovne skupnosti na področju laboratorijske medicine. Njegovo raziskovalno delo se osredotoča na avtoimunske bolezni, protitelesa in imunoserološke metode, zlasti v povezavi z Univerzitetnim kliničnim centrom v Ljubljani. Profesor Božič je opravljal številne vodstvene funkcije, v letih med 2007 in 2017 je bil prodekan in kasneje dekan UL FFA, med 2017 in 2021 pa predsednik Upravnega odbora UL. Vodil je pomembne projekte glede prenove študijskih programov, prostorskih ureditev in mednarodne povezave fakultete. Njegova prizadevanja so kadrovsko in materialno okrepila fakulteto ter jo umestila v evropski izobraževalni prostor. Njegov vpliv na raziskovalno, pedagoško in organizacijsko delovanje je neprecenljiv.

**Priznanje UL FFA za izjemne rezultate pri delu je prejela  
izr. prof. dr. Alenka Zvonar Pobirk**

Izr. prof. dr. Alenka Zvonar Pobirk je raziskovalka in predavateljica na področju farmacevtske tehnologije. Njene raziskave vključujejo razvoj lipidnih dostavnih sistemov za izboljšanje biološke uporabnosti učinkovin, pretvorbo teh sistemov v trdne oblike ter razvoj dermalnih farmacevtskih oblik. Vodi študijski program Kozmetologija in je mentorica številnim študentom, ki so prejeli ugledna priznanja. Je tudi izkušena organizatorica znanstvenih dogodkov, vključno s konferenco BBBB v letu 2022 in prihajajočim 15. simpozijem CESPT. S svojo pedagoško in znanstveno dejavnostjo ter širjenjem znanja med javnostjo pomembno prispeva k ugledu fakultete.

**UL FFA Lifetime Achievement Award –  
Professor Borut Božič**

Professor Borut Božič is a distinguished expert in clinical biochemistry, a dedicated teacher, researcher, and leader. He is also a key pillar of the Slovenian professional community in the field of laboratory medicine. His research focuses on autoimmune diseases, antibodies, and immunoserological methods, particularly in collaboration with the University Medical Centre Ljubljana. Professor Božič has held numerous leadership roles: between 2007 and 2017 he served as Vice-Dean and later Dean of UL FFA, and from 2017 to 2021 he was the president of the UL Governing Board. He led important projects related to the renewal of study programmes, infrastructural developments, and the Faculty's international cooperation. His efforts made significant improvements to the Faculty in terms of human resources and infrastructure, placing it firmly within the European higher-education landscape. His influence on the Faculty's research, teaching, and organizational work is invaluable.

**UL FFA Award for the Outstanding Work –  
Associate professor Alenka Zvonar Pobirk**

Associate professor Alenka Zvonar Pobirk is a researcher and lecturer in pharmaceutical technology. Her research includes the development of lipid-based delivery systems to improve drug bioavailability, their transformation into solid formulations, and the development of dermal dosage forms. She leads the Cosmetology study programme and has supervised numerous award-winning students. She is also an experienced organizer of scientific events, including the 2022 BBBB conference and the upcoming 15th CESPT Symposium. Through her teaching, research, and public engagement, she significantly contributes to the Faculty's reputation.

**Priznanje UL FFA za izjemne rezultate pri delu je prejel  
prof. dr. Žiga Jakopin**

Prof. dr. Žiga Jakopin je s svojimi raziskavami pomembno prispeval k razvoju farmacevtske kemije, toksikologije in imunoterapije. V svojih zadnjih delih je raziskoval vplive halogeniranih spojin na imunski in endokrini sistem. S temi raziskavami je opozoril na zdravstvena tveganja teh snovi. Njegovo delo vključuje tudi računalniško proučevanje halogeniranih parabenov ter razvoj inovativnih adjuvansov za cepiva. Poleg tega je raziskal uporabo agonistov NOD v imunoterapiji raka, kar odpira nove možnosti zdravljenja. Zaradi teh pionirskih prispevkov, ki imajo neposreden vpliv na znanost in zdravje ljudi, si zasluži priznanje za izjemne rezultate pri delu.

**Priznanje zunanjemu sodelavcu ali poslovnemu  
partnerju je prejelo Slovensko farmacevtsko društvo  
(SFD)**

Slovensko farmacevtsko društvo si zasluži priznanje fakultete za izjemen prispevek k razvoju farmacevtske stroke in podporo akademski sferi. Že od ustanovitve leta 1950 tesno sodeluje s fakulteto pri organizaciji domačih in mednarodnih dogodkov, kar krepi prepoznavnost slovenske farmacije. Društvo izdaja ključne strokovne publikacije, ki razvijajo slovensko terminologijo in podpirajo strokovni razvoj. Za združevanje akademskega znanja in prakse so pomembni tudi letni simpoziji društva. Ob prihajajoči 75-letnici delovanja ugotavljamo, da je Slovensko farmacevtsko društvo nepogrešljiv partner fakultete in nosilec napredka farmacevtske stroke v Sloveniji. Nagrado sta v imenu društva sprejela trenutni predsednik društva, prof. dr. Marko Anderluh, in generalna sekretarka društva dr. Andrijana Tivadar.

**UL FFA Award for Outstanding Work –  
Professor Žiga Jakopin**

Professor Žiga Jakopin has made important contributions to pharmaceutical chemistry, toxicology, and immunotherapy. His recent work investigates the effects of halogenated compounds on the immune and endocrine systems, drawing attention to their potential health risks. His research also includes computational studies of halogenated parabens and the development of innovative vaccine adjuvants. In addition, he has explored the use of NOD agonists in cancer immunotherapy, opening new therapeutic possibilities. These pioneering contributions, with direct implications for science and public health, merit recognition for outstanding work.

**UL FFA Award for External Collaborator or  
Business Partner – Slovenian Pharmaceutical Society  
(SFD)**

The Slovenian Pharmaceutical Society is recognized for its exceptional contribution to the development of the pharmaceutical profession and its longstanding support of the academic community. Since its founding in 1950, the Society has collaborated closely with the Faculty in organizing national and international events, improving the visibility of Slovenian pharmacy. The Society publishes key expert materials that advance Slovenian pharmaceutical terminology and support professional development. Its annual symposia are an important platform for connecting academic knowledge and practical experience. As the SFD approaches its 75th anniversary, the Society is an indispensable partner of the Faculty and a driver of progress in pharmaceutical science in Slovenia. The award was accepted on behalf of the Society by its current president, professor Marko Anderluh, and the Society's Secretary General, dr. Andrijana Tivadar.

**Priznanje študentom za izjemne dosežke sta prejeli  
Leonora Prestreši in Nadja Štradjot**

**Leonora Prestreši**, študentka študijskega programa Farmacija, je kot predsednica Študentskega sveta UL FFA v študijskem letu 2023/24 pomembno prispevala k izboljšanju študijskega procesa in prenovila sistem tutorstva. Poleg tega je vodila projekt Zdravila in mladi ter projekt InterAKCIJA ter objavila več člankov v študentskih znanstveno-strokovnih revijah.

**Nadja Štradjot**, študentka študijskega programa Kozmetologija, je kot podpredsednica Študentskega sveta UL FFA zavzeto zastopala študente in krepila odnose med njimi in profesorji. Aktivno je sodelovala v komisiji za Prešernove nagrade ter pri dogodkih, kot so Informativa in Pozdrav brucem. Njena prizadevnost in angažiranost sta pomembno obogatili življenje študentov na UL FFA.

**UL FFA Student Award for outstanding achievements –  
Leonora Prestreši and Nadja Štradjot**

Leonora Prestreši, a student in the Pharmacy study programme, made significant contributions to improving the study process during her term as President of the UL FFA Student Council in the 2023/24 academic year. She reorganized the tutoring system, led the projects *Medicines and Youth* and *InterAKCIJA*, and published several articles in student scientific and professional journals.

Nadja Štradjot, a student in the Cosmetology study programme, served as Vice-President of the UL FFA Student Council, actively representing students and solidifying relationships between students and professors. She participated in the Prešeren award committee and in events such as Informativa and the Welcome Week for first-year students. Her dedication and engagement have significantly enriched student life at UL FFA.

**PREJEMNIKI DEKANOVIH NAGRAD 2024**

Dekanove nagrade se podelijo študentom, raziskovalcem ali doktorandom UL FFA, ki so v preteklem obdobju kot prvi ali vodilni avtor objavili delo v reviji z visokim faktorjem vpliva s posameznega področja in s tem doprinesli k razvoju farmacevtske znanosti in stroke.

**Prejemniki dekanovih nagrad 2024 so:**

**Dr. Jaka Dernovšek** za znanstveni članek z naslovom »Raziskava odnosa med strukturo in delovanjem novih triazolnih C-končnih zaviralcev Hsp90 in njihova optimizacija do spojin s protirakavim delovanjem in vivo«, objavljen v reviji *Biomedicine & pharmacotherapy*. Mentor: prof. dr. Tihomir Tomašič, somentor: izr. prof. dr. Nace Zidar.

**Dr. Andreja Emeršič** za znanstveni članek z naslovom »Fosforiliran tau T181, 217 in 231 v likvorju bolnikov z zanesljivo Creutzfeldt-Jakobovo boleznijo z ali brez sočasnih patologij«, objavljen v reviji *Alzheimer's & dementia*. Mentorica: izr. prof. dr. Saša Čučnik.

**Timeja Planinšek Parfant** za znanstveni članek z naslovom »Celovit pristop za določanje N-nitrozaminov v zdravilih z uporabo edinstvene kombinacije HILIC ekstrakcije na trdnem nosilcu in LC-HRMS«, objavljen v reviji *Talanta*. Mentor: prof. dr. Robert Roškar.

**Armando Tratenšek** za znanstveni članek z naslovom »Kazalniki oksidativnega stresa so obetavni označevalci aktivnosti kronične vnetne črevesne bolezni«, objavljen v reviji *Redox biology*. Mentor prof. dr. Tomaž Vovk, somentor: doc. dr. David Drobne.

**RECIPIENTS OF DEAN'S AWARDS**

The dean's awards are given to UL FFA students, researchers or doctoral students who in the past period as the first or leading author, published a work in a journal with a high impact factor from an individual field and thereby contributed to the development of pharmaceutical science and the profession.

**Recipients of the 2024 Dean's Awards are:**

**Dr. Jaka Dernovšek** for the scientific article entitled "Investigation of the structure–activity relationship of novel triazole C-terminal Hsp90 inhibitors and their optimization into compounds with in vivo anticancer activity," published in *Biomedicine & Pharmacotherapy*. Supervisor: Professor Tihomir Tomašič; Co-supervisor: Associate professor Nace Zidar.

**Dr. Andreja Emeršič** for the scientific article entitled "Phosphorylated tau T181, T217, and T231 in cerebrospinal fluid of patients with definite Creutzfeldt–Jakob disease with or without concurrent pathologies," published in *Alzheimer's & Dementia*. Supervisor: Associate professor Saša Čučnik.

**Timeja Planinšek Parfant** for the scientific article entitled "A comprehensive approach to determining N-nitrosamines in medicines using a unique combination of HILIC solid-phase extraction and LC-HRMS," published in *Talanta*. Supervisor: Professor Robert Roškar.

**Armando Tratenšek** for the scientific article entitled "Biomarkers of oxidative stress as promising indicators of activity in chronic inflammatory bowel disease," published in *Redox Biology*. Supervisor: Professor Tomaž Vovk; Co-supervisor: Assistant professor David Drobne.

**Veronika Weiss** za znanstveni članek z naslovom »Halogeniranje pogostih fenolnih sestavin gospodinjskih izdelkov in izdelkov za osebno nego poveča njihovo sposobnost modulacije AhR«, objavljen v reviji *Chemosphere*. Mentor: prof. dr. Žiga Jakopin, somentorica: izr. prof. dr. Martina Gobec.

**Anže Zidar** za znanstveni članek z naslovom »Razvoj novega in vitro celičnega modela za vrednotenje imunogenosti membran iz nanovlaken«, objavljen v reviji *International journal of pharmaceuticals*. Mentorica prof. dr. Julijana Kristl, somentor: prof. dr. Matjaž Jeras.

**PREJEMNIKI FAKULTETNIH PREŠERNOVIH  
NAGRAD 2024**

**Tjaša Bratušek:** Proučevanje medsebojnega uravnavanja proteasomov in katepsinov v aktivirani mikrogliji. Mentorica: izr. prof. dr. Anja Pišlar, somentorica: izr. prof. dr. Martina Gobec.

**Jernej Cingl:** Diastereoselektivno Friedel–Craftsovo alkiliranje v asimetrični sintezi analogov palidola in karafenola C. Mentor: prof. dr. Tihomir Tomašič, somentor: doc. dr. Andrej Emanuel Cotman.

**Nina Gradišek:** Načrtovanje in sinteza zaviralcev stresnega proteina Hsp90 z različnimi mehanizmi delovanja. Mentor: prof. dr. Tihomir Tomašič, somentor: dr. Jaka Dernovšek.

**Ema Kurent:** Razvoj kromatografskega pristopa za vrednotenje vsebnosti kolagena v prehranskih dopolnilih. Mentor: prof. dr. Robert Roškar, somentorica: asist. Nika Kržišnik.

**Jaka Vrevc Žlajpah:** Analiza farmakogenetskih dejavnikov pri bolnikih z akutno limfoblastno levkemijo na terapiji s tiopurini. Mentorica: izr. prof. dr. Nataša Karas Kuželički, somentorica: doc. dr. Alenka Šmid.

Veronika Weiss for the scientific article entitled “Halogenation of common phenolic ingredients of household and personal care products enhances their ability to modulate AhR,” published in *Chemosphere*. Supervisor: Professor Žiga Jakopin; Co-supervisor: Associate professor Martina Gobec.

Anže Zidar for the scientific article entitled “Development of a novel in vitro cell model for the evaluation of the immunogenicity of nanofiber membranes,” published in the *International Journal of Pharmaceuticals*. Supervisor: Professor Julijana Kristl; Co-supervisor: Professor Matjaž Jeras.

**RECIPIENTS OF FACULTY PREŠEREN PRIZE FOR  
STUDENTS**

Tjaša Bratušek: Study of the interplay of proteasomes and cathepsins in activated microglia. Supervisor: Assoc. Prof. Dr. Anja Pišlar, Co-supervisor: Assoc. Prof. Dr. Martina Gobec.

Jernej Cingl: Diastereoselective Friedel–Crafts alkylation in the asymmetric synthesis of pallidol and caraphenol C analogs. Supervisor: Prof. Dr. Tihomir Tomašič, Co-supervisor: Assist. Prof. Dr. Andrej Emanuel Cotman.

Nina Gradišek: Design and synthesis of heat shock protein 90 inhibitors with various mode of action. Supervisor: Prof. Dr. Tihomir Tomašič, Co-supervisor: Jaka Dernovšek.

Ema Kurent: Development of a chromatographic approach for evaluation of collagen content in food supplements. Supervisor: Prof. Dr. Robert Roškar, Co-supervisor: Nika Kržišnik.

Jaka Vrevc Žlajpah: Analysis of pharmacogenetic factors in patients with acute lymphoblastic leukaemia undergoing thiopurine therapy. Supervisor: Assoc. Prof. Dr. Nataša Karas Kuželički, Co-supervisor: Assist. Prof. Dr. Alenka Šmid.

**PRIZNANJA IN POHVALE FAKULTETE ŠTUDENTOM**

V letu 2024 smo priznanja fakultete podelili 55 študentom, ki so v času študija tekoče napredovali in pri vseh študijskih obveznostih dosegli povprečno oceno 9,00 ali več.

V letu 2024 smo pohvale fakultete podelili 152 študentom. Pohvale prejmejo najboljši študenti posameznega letnika vseh univerzitetnih in magistrskih študijskih programov na UL FFA. Pogoji za pridobitev tega priznanja so status študenta, povprečna ocena 9,00 ali več ter opravljene vse študijske obveznosti v obravnavanem letniku.

**FACULTY OF PHARMACY RECOGNITIONS**

In 2024, we have awarded 55 recognitions. The Faculty recognitions are awarded to graduates who have made continuous progress throughout their studies and have achieved an average grade of 9.00 or more.

In 2024, we have awarded 152 commendations. The Faculty Commendations are awarded to the best students in each year of the first and second cycle of study at the Faculty of Pharmacy. The requirements for receiving this award are student status, a grade point average of 9.00 or higher, and completion of all coursework requirements in that academic year.



# 4

Seznam diplomantov  
List of graduates

# DIPLOMANTI NA FAKULTETI ZA FARMACIJO V LETU 2024

## 2024 GRADUATES AT THE FACULTY OF PHARMACY

### UNIVERZITETNI ŠTUDIJSKI PROGRAM KOZMETOLOGIJA

#### BACHELOR DEGREE STUDY PROGRAMME COSMETOLOGY

|                     |                     |
|---------------------|---------------------|
| Banožić Valentina   | Knafelc Nikita      |
| Bellini Taja        | Kordež Zala         |
| Cerovšek Eva        | Kostevc Sanja       |
| Dretnik Urška       | Kunst Neja          |
| Erjavec Pia         | Mohorko Michelle    |
| Gagula Hana         | Pirec Urška         |
| Grošelj Tiana       | Piškur Vinona Čarna |
| Grubič Sara         | Podlogar Klavdija   |
| Hedžet Tajda        | Pogačar Sara        |
| Jamšek Monika       | Šarman Ajda         |
| Jud Nuša            | Škerl Monika        |
| Juvan Zupančič Sara | Škrinjar Samanta    |
| Klemenčič Manca     | Šneider Lara        |

### UNIVERZITETNI ŠTUDIJSKI PROGRAM LABORATORIJSKA BIOMEDICINA

#### BACHELOR DEGREE STUDY PROGRAMME LABORATORY BIOMEDICINE

|                       |                     |
|-----------------------|---------------------|
| Bedenik Žan           | Mohar Kaja          |
| Bratun Manja          | Pajer Špela         |
| Čturić Lidija         | Petrina Maša        |
| Doberšek Zarja        | Planinšek Pia       |
| Dvoršek Tjaša         | Poje Manca          |
| Flac Neli             | Poljšak Mihaela     |
| Flego Živa            | Prašnikar Nejc      |
| Gorenc Jerca          | Račnik Lara         |
| Ibradžić Amajla       | Rajaković Maša      |
| Jakop Nina            | Rebol Sara          |
| Klement Maja          | Slomšek Ana         |
| Konda Staša           | Topalović Megi      |
| Kopač Lina            | Travnik Toni        |
| Koprek Melani         | Uršič Lana          |
| Krajnc Nika           | Vaupotič Tinkara    |
| Kremesec Mrkalj Nives | Verhovec Ana        |
| Kren Anja             | Vogrin Larissa      |
| Lešnik Kaja           | Vratnik Tjaša       |
| Matelič Helena        | Vrečič Tivadar Maja |
| Melkić Sitar Inja     | Zidar Mark          |

ENOVITI MAGISTRSKI ŠTUDIJSKI PROGRAM FARMACIJA  
SINGLE-CYCLE MASTER STUDY PROGRAMME PHARMACY

|                  |                        |
|------------------|------------------------|
| Bauer Klavdija   | Goljevšček Sara        |
| Bedek Ana        | Golob Jernej           |
| Bele Klemen      | Goršek Lara            |
| Benčina Tina     | Grajzar Nina           |
| Bolta Katja      | Grobelšek Lora         |
| Borovnik Laura   | Grum Nina              |
| Bratušek Tjaša   | Gržin Lora             |
| Brčina Špela     | Hameršak Erika         |
| Bremšak Petra    | Horvat Anja            |
| Brilej Neža      | Ilešič Lucija          |
| Brkinjač Špela   | Jaklič Laura           |
| Cafuta Urška     | Janžekovič Vida Julija |
| Cencič Eva       | Jenko Manca            |
| Ciber Dönmez Ema | Jugović Tjaša          |
| Cvetanoska Maja  | Kac Anže               |
| Cvikl Mojca      | Kadiš Lea              |
| Črešnar Tina     | Kambič Ana             |
| Debevec Kaja     | Kampl Klemen           |
| Dobaj Nina       | Kastelic Katarina      |
| Dobnik Gašper    | Kastelic Helena        |
| Dražil Lucija    | Kegl Tina              |
| Ekart Nina       | Kemperle Gašper        |
| Fišer Metka      | Klemen Jaka            |
| Frelih Aljaž     | Knap Larisa            |
| Fricelj Tanja    | Kodrič Sara            |
| Fridrih Bine     | Kodrič Tina            |
| Gaberc Tjaša     | Kokalj Ajda            |
| Glavič Urša      | Kokol Jasmina          |

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| Kolar Tina         |
| Kolar Jakob        |
| Kolenc Lana        |
| Korošec Anja       |
| Košir Eva          |
| Kovačič Romi Lea   |
| Kralj Ana Marija   |
| Kralj Tilen        |
| Kranjc Aljaž       |
| Krmac Marko        |
| Kulovec Zala       |
| Kurent Ema         |
| Lebar Mihael       |
| Lipušič Marjeta    |
| Matoh Blaž         |
| Mazej Nika         |
| Medved Laura       |
| Mihelič Maruša     |
| Miklavc Anja       |
| Milostnik Nina     |
| Miočič Marko       |
| Mlakar Anja        |
| Mlinšek Anja       |
| Možek Tjaša        |
| Navratil Juš       |
| Oberstar Sara      |
| Osmanbegović Sara  |
| Pahor Alen         |
| Petančič Žiga      |
| Petrič Neja        |
| Petrovčič Veronika |

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| Podboršek Luka      |
| Poje Vampelj Maruša |
| Prislan Manca       |
| Rakoše Iva          |
| Roglič Mitja        |
| Rožanc Ajda         |
| Seliškar Petra      |
| Skrtn Ana           |
| Skube Taja          |
| Smajlović Elvira    |
| Smolnikar Anja      |
| Strmšnik Tilen      |
| Svečko Lana         |
| Svetina Elen        |
| Šarner Laura        |
| Šimc Urša           |
| Škvarč Tina         |
| Števančec Nuša      |
| Štumberger Liza     |
| Šukalo Nataša       |
| Tomaš Rok           |
| Torkar Petra        |
| Tratar Alja         |
| Trpin Neža          |
| Tršek Anja          |
| Trunkelj Natalija   |
| Turk Špela          |
| Tušar Anamarija     |
| Tušar Iza           |
| Veršovnik Klara     |
| Vičič Karolina      |

Vidrih Maruša  
Vodopivec Žan  
Vodopivec Anej  
Vogrinčič Tjaša  
Vohar Anika  
Volarič Nejka

Zajc Maja  
Završnik Puhar Sara  
Zemljak Anže  
Zoran Tinkara  
Zorman Maša

MAGISTRSKI ŠTUDIJSKI PROGRAM INDUSTRIJSKA FARMACIJA  
MASTER DEGREE STUDY PROGRAMME INDUSTRIAL PHARMACY

Bangiev Anja  
Benda Klavdija  
Berglez Pia  
Bernik Teja  
Bevk Ana  
Bistan Katarina  
Cigale Maruša  
Fekonja Vesna  
Gorenc Natalija  
Grobiša Nika  
Hajdarović Elena  
Horvat Nuša  
Keber Lara  
Kopčavar Zala  
Maležič Gregor  
Malovrh Monika  
Marinič Laura  
Marolt Ana  
Meglen Maja  
Meglen Petra

Metličar Klara  
Mravlje Manca  
Papa Sara  
Pezdirec Ana  
Pirnat Maša  
Rednak Sara  
Repar Lara  
Šenk Anja  
Šenkinc Nastja  
Šikovec Tina  
Škof Nika  
Štefanec Eva  
Šubic Žiga  
Topler Eva  
Vesel Žiga  
Vetrih Manca  
Vovk Tara  
Zabukovnik Janja  
Zoretič Barbara  
Žarn Tadeja

MAGISTRSKI ŠTUDIJSKI PROGRAM LABORATORIJSKA BIOMEDICINA  
MASTER DEGREE STUDY PROGRAMME LABORATORY BIOMEDICINE

Arko Diana  
Artnjak Diana  
Bajrić Amila  
Bartulović Rafaela  
Biškup Nika  
Boštic Nika  
Bračić Manca  
Bučinel Miriam  
Dajčman Lucija  
Dolar Bratuša Alisa  
Gotovac Svetlana  
Grosek Vanja  
Hafner Katarina  
Hodalj Lucija  
Ivanuša Nuša  
Janžič Urška  
Karoglan Anđela  
Karun Tina  
Kok Urška  
Korbar Karmen  
Kornhauzer Lara  
Košir Katja

Kovačević Matija  
Križnar Pia  
Križovnik Nuša  
Kuster Tamara Picaboo  
Lenarčič Kaja  
Lunder Alen  
Makoter Izabela  
Ogrizek Ivana  
Pezdirc Špela  
Pollak Sicherl Pika  
Simonič Sara  
Strašek Larisa  
Šeb Iva  
Škof Maja  
Štaman Melanija  
Vehar Mateja  
Vencelj Ana  
Založnik Neža  
Zlodej Špela  
Zupančič Matic  
Žežlina Maja  
Žižek Pia

# DOKTORSKI ŠTUDIJSKI PROGRAM BIOMEDICINA

## DOCTORAL STUDY PROGRAMME OF BIOMEDICINE

### DOKTORATI OCENJENI Z ODLIKO (CUM LAUDE)

#### DOCTORATES WITH THE HONOR *CUM LAUDE*

Dernovšek, Jaka (mentor Tihomir Tomašič; somentor Nace Zidar): Načrtovanje, sinteza in vrednotenje novih zaviralcev proteina toplotnega šoka 90 s protitumornim delovanjem = Design, synthesis and evaluation of new heat shock protein 90 inhibitors with anticancer activity, COBISS.SI-ID: 207950083. Področje: farmacija.

Stanojević, Mark (mentorica Marija Sollner Dolenc; somentor Marko Vračko Grobelšek): Vrednotenje in razvoj in silico modelov za napovedovanje vezave spojin na izbrane jedrne hormonske receptorje = The evaluation and development of in silico models prediction of compounds binding to selected nuclear hormone receptors, COBISS.SI-ID: 206476803. Področje: Toksikologija

### DOKTORATI S PODROČJA FARMACEVTSKIH ZNANOSTI

#### DOCTORATES IN THE FIELD OF PHARMACEUTICAL SCIENCES

Balsollier, Cyril (mentor Anderluh, Marko): Uporaba bioloških in računalniških orodij za načrtovanje, testiranje in sintezo novih zaviralcev  $\beta$ -N-acetilglukozaminil transferaze = The use of biological and computational tools to screen, assess and synthesize new potent inhibitors of  $\beta$ -N-acetylglucosaminyl transferase, PID: 20.500.12556/RUL-155602.

Herlah, Barbara (mentor Andrej Perdih; somentor Izidor Sosič): Dinamični model DNA topoizomeraze tipa II ter in silico načrtovanje novih katalitičnih zaviralcev kot potencialnih kemoterapevtikov = Dynamical model of a type II DNA topoisomerase and in silico design of novel catalytic inhibitors as potential chemotherapeutics, COBISS.SI-ID: 214908931.

Maja Kokot (mentor Nikola Minovski, somentorica Martina Hrast Rambaher): Strukturno podprto načrtovanje in optimizacija selektivne toksičnosti novih zaviralcev bakterijske topoizomeraze tipa II = Structure-based design and optimisation of selective toxicity of novel bacterial topoisomerase type II inhibitors, COBISS.SI-ID: 213129219.

Grilc, Blaž (mentor Odon Planinšek): Razvoj bukalnih polimernih filmov za sistemsko dostavo zdravilnih učinkovin in diskriminatorne in vitro metode sproščanja = Development of polymer buccal films for systemic administration of active pharmaceutical ingredients and discriminatory in vitro release method, COBISS.SI-ID: 206763267.

Schoss, Katja (mentorica Nina Kočever Glavač; somentor Samo Kreft): Raziskave sestave in biološke učinkovitosti rastlinskih izvlečkov, pridobljenih s sub- in superkritičnimi fluidi = Research on the composition and biological efficacy of plant extracts obtained with sub- and supercritical fluids, COBISS.SI-ID: 220937219.

Strašek Benedik, Nika (mentor Izidor Sosič; somentor Matej Sova): Razvoj zaviralcev imunoproteasoma in modulatorjev imunskih signalnih poti s protitumornim in protivnetnim delovanjem = Development of immunoproteasome inhibitors and modulators of immune signaling pathways with anti-tumor and anti-inflammatory activity, COBISS.SI-ID: 217237763.

### DOKTORATI S PODROČJA KLINIČNE BIOKEMIJE IN LABORATORIJSKE BIOMEDICINE

#### DOCTORATES IN THE FIELD OF CLINICAL BIOCHEMISTRY AND LABORATORY BIOMEDICINE

Emeršič, Andreja (mentorica Saša Čučnik): Diagnostični in prognostični pomen posttranslacijskih sprememb beljakovine tau pri nevrodegenerativnih boleznih = Diagnostic and prognostic importance of tau protein posttranslational modifications in neurodegenerative diseases, COBISS.SI-ID: 206769667.

Van Klaveren, Sjors (mentor Tihomir Tomašič; somentorji Ulf Nilsson, Björn Walse, Richard Johnsson): Nizkomolekularni ligandi galektinov: strukturno podprta optimizacija afinitete in selektivnosti = Small-molecule galectin ligands: structure-based optimisation of affinity and selectivity, COBISS.SI-ID: 191366403.

Vrščaj, Lucija Ana (mentorica Janja Marc; somentorica Barbara Ostanek): Vloga nekodirajočih RNA pri anaboličnem zdravljenju osteoporoze s teriparatidom = The role of non-coding RNAs in anabolic treatment of osteoporosis with teriparatide, COBISS.SI-ID: 213765123.

### DOKTORATI S PODROČJA TOKSIKOLOGIJE

#### DOCTORATES IN THE FIELD OF TOXICOLOGY

Joukhan, Ahmad (mentorica Damjana Drobne; somentorica Marija Sollner Dolenc): The effects of selected free and nanoparticles embedded antagonists of nicotinic acetylcholine receptors on lung cancer cells = Vpliv izbranih prostih in v nanodelce vgrajenih antagonistov nikotinskih acetilholinskih receptorjev na celice raka pljuč, COBISS.SI-ID: 207388931.



## 5 Znanstvene in strokovne publikacije Scientific and professional publications

IZVIRNI ZNANSTVENI ČLANKI / ORIGINAL SCIENTIFIC ARTICLES

ALBREHT, Alen, MARTELANC, Mitja, ŽIBERNA, Lovro. Simultaneous determination of free biliverdin and free bilirubin in serum : a comprehensive LC-MS approach. *Analytica chimica acta*. 2024, vol. 1287, [article no.] 342073, str. 1-8, [COBISS.SI-ID 176790787].

ANŽIČ DROFENIK, Ajda, BLINC, Aleš, BOŽIČ MIJOVSKI, Mojca, PAJIČ, Tadej, VRTOVEC, Matjaž, SEVER, Matjaž. Relation of JAK2 V617F allele burden and coronary calcium score in patients with essential thrombocythemia. *Radiology and oncology*. 2024, vol. 58, iss. 4, str. 565-572, xi. [COBISS.SI-ID 211840515].

BALSOLLIER, Cyril, BIJKERK, Simon, DE SMIT, Arjen, VAN EKELLEN, Kevin, BOZOVIČAR, Krištof, HUSSTEGE, Dirk,TOMAŠIČ, Tihomir, ANDERLUH, Marko, PIETERS, Roland J. Discovery of two non-UDP-mimic inhibitors of O-GlcNAc transferase by screening a DNA-encoded library. *Bioorganic chemistry*. 2024, vol. 147, str. 1-10, [COBISS.SI-ID 191274499].

BAUMGARTNER, Ana, DOBAJ, Nina, PLANINŠEK, Odon. Investigating the influence of processing conditions on dissolution and physical stability of solid dispersions with fenofibrate and mesoporous silica. *Pharmaceutics*. 2024, vol. 16, iss. 5, [article no.] 575, 23 str., [COBISS.SI-ID 193690883].

BAUMGARTNER, Ana, PLANINŠEK, Odon. Development of orodispersible tablets with solid dispersions of fenofibrate and co-processed mesoporous silica for improved dissolution. *Pharmaceutics*. 2024, vol. 16, iss. 8, [article no.] 1060, str. 1-9, [COBISS.SI-ID 204275715].

BJELOŠEVIČ ŽIBERNA, Maja, AHLIN GRABNAR, Pegi, GAŠPERLIN, Mirjana, GOSENCA MATJAŽ, Mirjam. Lyophilised protein formulations as a patient-centric dosage form : a contribution toward sustainability paradigm. *Acta pharmaceutica*. 2024, vol. 74, no. 2, str. 289-300, [COBISS.SI-ID 197050627].

BRICELJ, Aleša, NG, Yuen Lam Dora, GOBEC, Martina, KUČHTA, Robert, HU, Wanyi, JAVORNIK, Špela, ROŽIČ, Miha, GÜTSCHOW, Michael, ZHENG, Guangrong, SOSIČ, Izidor, et al. Design, synthesis, and evaluation of BCL-2 targeting PROTACs. *Chemistry : a European journal*. 2024, vol. 30, iss. 45, [article no. e202400430], 8 str., [COBISS.SI-ID 197511171].

BUHL, Caroline, JACOBSEN, Ramune, BIRNA ALMARSDÓTTIR, Anna, ABTAHI, Shahab, ANDERSEN, Armin, DELIGIANNI, Elena, DERMIKI-GKANA, Foteini, KONTOGIORGIS, Christos, KOS, Mitja, ČEBRON LIPOVEC, Nanča, et al. Public’s perspective on COVID-19 adenovirus vector vaccines after thrombosis with thrombocytopenia syndrome (TTS) reports and associated regulatory actions - a cross-sectional study in six EU member states. *Vaccine*. 2024, vol. 42, iss. 3, str. 556-563, [COBISS.SI-ID 179573763].

CERAR, Sandra, VURZER, Lara, SOLTIROVSKA ŠALAMON, Aneta, KORNHAUSER-CERAR, Lilijana, TRDAN, Matevž, ROBEK, Domen, PERME, Tina, BIČEK, Ajda, OBLAK, Adrijana, MARC, Janja, ČERNE, Darko, ERČULJ, Vanja, GROSEK, Štefan. Diagnostics of Metabolic Bone Disease in extremely preterm infants — clinical applicability of bone Turnover Biochemical markers and quantitative ultrasound. *Children*. 2024, vol. 11, iss. 7, [article no.784], str. 1-15, [COBISS.SI-ID 200128259].

COLETTIS, Natalia, HIGGS, Josefina, WASOWSKI, Cristina, KNEZ, Damijan, GOBEC, Stanislav, PASTORE, Valentina, MARDER MARIEL, Nora. 3,3-dibromoflavanone, a synthetic flavonoid derivative for pain management with antidepressant-like effects and fewer side effects than those of morphine in mice. *Chemico-biological interactions*. 2024, vol. 402, [article. no.] 111189, str. 1-13, [COBISS.SI-ID 204115459].

COTMAN, Andrej Emanuel, FULGHERI, Federica, PIGA, Martina, PERŠOLJA, Peter, BENEDETTO TIZ, Davide, SKOK, Žiga, DURCIK, Martina, STERLE, Maša, DERNOVŠEK, Jaka, ZEGA, Anamarija, PETERLIN-MAŠIČ, Lucija, ILAŠ, Janez, TOMAŠIČ, Tihomir, KIKELJ, Danijel, ZIDAR, Nace, et al. New N-phenylpyrrolamide inhibitors of DNA gyrase with improved antibacterial activity. *RSC advances*. 2024, vol. 14, str. 28423-28454, [COBISS.SI-ID 206901507].

ČEBRON LIPOVEC, Nanča. Opioid analgesics prescribing trends 2010 - 2019 in Slovenia : a national database study. *Human psychopharmacology*. 2024, vol. 39, iss. 2, str. 1-9, [COBISS.SI-ID 177977859].

DERNOVŠEK, Jaka, GORIČAN, Tjaša, GEDGAUDAS, Marius, ZAJEC, Živa, URBANČIČ, Dunja, JUG, Ana, SKOK, Žiga, GOLIČ GRDADOLNIK, Simona, ILAŠ, Janez, ZIDAR, Nace, TOMAŠIČ, Tihomir, et al. Hiding in plain sight : optimizing topoisomerase IIα inhibitors into Hsp90β selective binders. *European journal of medicinal chemistry*. 2024, vol. 280, art. 116934, 37 str., [COBISS.SI-ID 210758915].

DERNOVŠEK, Jaka, GRADIŠEK, Nina, ZAJEC, Živa, URBANČIČ, Dunja, CINGL, Jernej, GORIČAN, Tjaša, GOLIČ GRDADOLNIK, Simona, TOMAŠIČ, Tihomir. Discovery of new Hsp90–Cdc37 protein–protein interaction inhibitors : in silico screening and optimization of anticancer activity. *RSC advances*. 2024, vol. 14, iss. 39, str. 28347–28375, [COBISS.SI-ID 206551811].

DERNOVŠEK, Jaka, URBANČIČ, Dunja, ZAJEC, Živa, STURTZEL, Caterina, GORIČAN, Tjaša, GOLIČ GRDADOLNIK, Simona, SKOK, Žiga, ILAŠ, Janez, ZIDAR, Nace, TOMAŠIČ, Tihomir, et al. First dual inhibitors of human topoisomerase IIα and Hsp90 C-terminal domain inhibit the growth of Ewing sarcoma in vitro and in vivo. *Bioorganic chemistry*. 2024, vol. 153, art. 107850, 20 str., [COBISS.SI-ID 209903875].

DERNOVŠEK, Jaka, ZAJEC, Živa, POJE, Goran, URBANČIČ, Dunja, GORIČAN, Tjaša, GOLIČ GRDADOLNIK, Simona, MLINARIČ-RAŠČAN, Irena, COTMAN, Andrej Emanuel, ZIDAR, Nace, TOMAŠIČ, Tihomir, et al. Exploration and optimisation of structure-activity relationships of new triazole-based C-terminal Hsp90 inhibitors towards in vivo anticancer potency. *Biomedicine & pharmacotherapy*. 2024, vol. 177, [article no.] 16941, 29 str., [COBISS.SI-ID 199197699].

DISHA IBRAHIMI, Saranda, DREVENŠEK, Gorazd, DREVENŠEK, Martina, MARC, Janja, PRODAN ŽITNIK, Irena. PPIA, HRPT1, and PGK1 genes as the appropriate combination for RT-qPCR normalization in alveolar and femoral bone remodeling in olanzapine-treated rats. *Acta pharmaceutica*. 2024, vol. 74, no. 3, str. 511-524, [COBISS.SI-ID 206027523].

DOBRAVC VERBIČ, Matej, GRABNAR, Iztok, BRVAR, Miran. Association between prescribing and intoxication rates for selected psychotropic drugs : a longitudinal observational study. *Pharmaceutics*. 2024, vol. 17, iss. 1, [article no.] 143, str. 1-13, [COBISS.SI-ID 184008707].

DOBRIČIČ, Vladimir, MARODI, Marko, MARKOVIČ, Bojan, TOMAŠIČ, Tihomir, DURCIK, Martina, ZIDAR, Nace, PETERLIN-MAŠIČ, Lucija, ILAŠ, Janez, KIKELJ, Danijel, ČUDINA, Olivera. Estimation of passive gastrointestinal absorption of new dual DNA gyrase and topoisomerase IV inhibitors using PAMPA and biopartitioning micellar chromatography and quantitative structure-retention relationship analysis. *Journal of chromatography. B, Analytical technologies in the biomedical and life sciences*. 2024, vol. 1240, 8 str., [COBISS.SI-ID 196044547].

DOBRIČIČ, Vladimir, SAVIČ, Jelena, TOMAŠIČ, Tihomir, DURCIK, Martina, ZIDAR, Nace, PETERLIN-MAŠIČ, Lucija, ILAŠ, Janez, KIKELJ, Danijel, ČUDINA, Olivera. High-performance liquid chromatography evaluation of lipophilicity and QSRR modeling of a series of dual DNA gyrase and topoisomerase IV inhibitors. *Acta Chromatographica*. 2024, vol. 36, no. 1, str. 45-51, [COBISS.SI-ID 132432387].

DRAGAR, Črt, ROŠKAR, Robert, KOCBEK, Petra. The incorporated drug affects the properties of hydrophilic nanofibers. *Nanomaterials*. 2024, vol. 14, iss. 11, [art.] 949, str. 1-20, [COBISS.SI-ID 197061635].

DURCIK, Martina, CRUZ, Cristina D., SCORCIAPINO, Mariano Andrea, ILAŠ, Janez, TAMMELA, Päivi, CECCARELLI, Matteo, PETERLIN-MAŠIČ, Lucija, TOMAŠIČ, Tihomir. Benzothiazole DNA gyrase inhibitors and their conjugates with siderophore mimics : design, synthesis and evaluation. *RSC advances*. 2024, vol. 14, iss. 5, str. 2905-2917, [COBISS.SI-ID 181568259].

EDALAT, Sam G., GERBER, Reto, HOUTMAN, Miranda, LÜCKGEN, Janine, TEIXEIRA, Rui Lourenço, PALACIOS CISNEROS, Maria del Pilar, PFANNER, Tamara, KURET, Tadeja, IŽANC, Nadja, MICHEROLI, Raphael, BURJA, Blaž, ROTAR, Žiga, TOMŠIČ, Matija, ČUČNIK, Saša, SODIN-ŠEMRL, Snežna, et al. Molecular maps of synovial cells in inflammatory arthritis using an optimized synovium dissociation protocol. *iScience*. 2024, vol. 27, iss. 6, [article no.] 109707, str. 1-28, [COBISS.SI-ID 195037699].

EMERŠIČ, Andreja, ASHTON, Nicholas J., VRILLON, Agathe, LANTERO-RODRIGUEZ, Juan, MLAKAR, Jernej, GREGORIČ KRAMBERGER, Milica, GONZALEZ-ORTIZ, Fernando, KAC, Przemyslaw R., DULEWICZ, Maciej, HANRIEDER, Jörg, ROT, Uroš, ČUČNIK, Saša, et al. Cerebrospinal fluid p-tau181, 217, and 231 in definite Creutzfeldt-Jakob disease with and without concomitant pathologies. *Alzheimer's & dementia*. 2024, vol. 20, iss. 8, [article no.] 13907, str. 5324-5337, [COBISS.SI-ID 200801283].

EMERŠIČ, Andreja, KARIKARI, Thomas K. K, KAC, Przemyslaw R., GONZALEZ-ORTIZ, Fernando, DULEWICZ, Maciej, ASHTON, Nicholas J., BRECL JAKOB, Gregor, HORVAT LEDINEK, Alenka, HANRIEDER, Jörg, ZETTERBERG, Henrik, ROT, Uroš, ČUČNIK, Saša, et al. Biomarkers of tau phosphorylation state are associated with the clinical course of multiple sclerosis. *Multiple sclerosis and related disorders*. 2024, vol. 90, [article no.] 105801, str. 1-8. [COBISS.SI-ID 205221635].

ENCINAS, Lourdes, LI, Si-Yang, RULLAS-TRINCADO, Joaquin, TASNEEN, Rokeya, TYAGI, Sandeep, SONI, Heena, GARCIA-PEREZ, Adolfo, LEE, Jin, SOSIČ, Izidor, GOBEC, Stanislav, et al. Contribution of direct InhA inhibitors to novel drug regimens in a mouse model of tuberculosis. *Antimicrobial agents and chemotherapy*. 2024, vol. 68, iss. 11, 17 str., [COBISS.SI-ID 209594883].

ESIH, Hana, MEZGEC, Klemen, BILLMEIER, Martina, MALENŠEK, Špela, BENČINA, Mojca, GRILC, Blaž, VIDMAR, Sara, GAŠPERLIN, Mirjana, BELE, Marjan, ZIDARN, Mihaela, LEJKO-ZUPANC, Tatjana, MORGAN, Tina, LAINŠČEK, Duško, JERALA, Roman, et al. Mucoadhesive film for oral delivery of vaccines for protection of the respiratory tract. *Journal of controlled release*. 2024, vol. 371, str. 179-192, [COBISS.SI-ID 197189635].

FELICIJAN, Tjaša, RAKOŠE, Iva, PRISLAN, Manca, LOCATELLI, Igor, BOGATAJ, Marija, TRONTELJ, Jurij. Application of a novel dissolution medium with lipids for In vitro simulation of the postprandial gastric content. *Pharmaceutics*. 2024, vol. 16, iss. 8, [article no.] 1040, str. 1-18, [COBISS.SI-ID 204238339].

FELICIJAN, Tjaša, BOGATAJ, Marija. Forecasting the effect of water gastric emptying patterns on model drug release in an in vitro glass-bead flow-through system. *Acta pharmaceutica*. 2024, vol. 74, no. 2, str. 269-287, [COBISS.SI-ID 188738051].

FRANCE ŠTIGLIC, Alenka, STAJNKO, Anja, SEŠEK-BRIŠKI, Alenka, SNOJ TRATNIK, Janja, MAZEJ, Darja, JERIN, Aleš, SKITEK, Milan, HORVAT, Milena, MARC, Janja, FALNOGA, Ingrid. Associations between APOE genotypes, urine 8-isoprostane and blood trace elements in middle-aged mothers (CROME study). *Environment International*. 2024, vol. 193, [article no.] 109034, str. 1-14, [COBISS.SI-ID 212805891].

FRANKO, Nina, SOLLNER DOLENC, Marija. Evaluation of THP-1 and Jurkat cell lines coculture for the In vitro assessment of the effects of immunosuppressive substances. *Toxics*. 2024, vol. 12, iss. 8, art. 607, 13 str., [COBISS.SI-ID 204624131].

GONÇALVES, Sara, PEIXOTO, Francisco, SCHOSS, Katja, KOČEVAR GLAVAČ, Nina, GAIVÃO, Isabel. Elderberry hydrolate : exploring chemical profile, antioxidant potency and antigenotoxicity for cosmetic applications. *Applied sciences*. 2024, vol. 14, iss. 14, [article no.] 6338, 21 str., [COBISS.SI-ID 203745539].

GRABRIJAN, Katarina, STRAŠEK BENEDIK, Nika, KRAJNC, Alen, BOZOVIČAR, Krištof, KNEZ, Damijan, PROJ, Matic, ZDOVC, Irena, SOSIČ, Izidor, HRAST, Martina, GOBEC, Stanislav, et al. Synthesis and biochemical evaluation of new 3-amido-4-substituted monocyclic β-lactams as inhibitors of penicillin-binding protein(s). *Acta pharmaceutica*. 2024, vol. 74, no. 3, str. 423-440, [COBISS.SI-ID 206045187].

GRILC, Blaž, PLANINŠEK, Odon. Evaluation of monolayer and bilayer buccal films containing metoclopramide. *Pharmaceutics*. 2024, vol. 16, issue 3, [article no.] 354, 19 str., [COBISS.SI-ID 187502595].

GROBIN, Andrej, ROŠKAR, Robert, TRONTELJ, Jurij. Ocena obremenitve slovenskih vod s hormoni in izbranimi hormonskimi motilci = Assessment of slovenian waters' burden with hormones and selected endocrine disruptors. *Farmacevtski vestnik : strokovno glasilo slovenske farmacije*. 2024, letn. 75, št. 2, str. 75-82, [COBISS.SI-ID 196279555].

GROBIN, Andrej, ROŠKAR, Robert, TRONTELJ, Jurij. The environmental occurrence, fate, and risks of 25 endocrine disruptors in Slovenian waters. *Science of the total environment*. 2024, vol. 906, [art. no.] 167245, 13 str., [COBISS.SI-ID 167267587].

GUTIERREZ, Lucas J., PERŠOLJA, Peter, TOSSO, Rodrigo, ZIDAR, Nace, KIKELJ, Danijel, ENRIZ, Ricardo D. New ATP-competitive inhibitors of E. coli GyrB obtained from the mapping of hydrophobic floor at the binding site. Synthesis and biological evaluation. *RSC medicinal chemistry*. 2024, vol. 15, iss. 11, str. 3759-3777, [COBISS.SI-ID 205420547].

HAŠANOVÁ, Simona, CINGL, Jernej, TOMAŠIČ, Tihomir, COTMAN, Andrej Emanuel. Catalytic performance of Noyori–Ikariya-type ruthenium complex with tethered syn-ULTAM ligand for the asymmetric transfer hydrogenation of ketones. *Tetrahedron letters*. 2024, vol. 134, str. 1-4, [COBISS.SI-ID 187162371].

HERLAH, Barbara, GORIČAN, Tjaša, STRAŠEK BENEDIK, Nika, GOLIČ GRDADOLNIK, Simona, SOSIČ, Izidor, PERDIH, Andrej. Simulation- and AI-directed optimization of 4,6-substituted 1,3,5-triazin-2(1H)-ones as inhibitors of human DNA topoisomerase II $\alpha$ . *Computational and Structural Biotechnology Journal*. 2024, vol. 23, str. 2995-3018, [COBISS.SI-ID 200950531].

HUZJAK, Tilen, JAKASANOVSKI, Ognen, BERGINČ, Katja, PUŽ, Vid, ZAJC-KREFT, Katarina, JERAJ, Žiga, JANKOVIČ, Biljana. Overcoming drug impurity challenges in amorphous solid dispersion with rational development of biorelevant dissolution-permeation method. *European Journal of Pharmaceutical Sciences*. 2024, vol. 192, 12 str., [COBISS.SI-ID 188116227].

INJAC, Rade, PERŠE, Martina, ŠTRUKELJ, Borut, DJORDJEVIČ, Aleksandar N. Investigation of protective effects of fullereneol in vivo chronic testicular toxicity during doxorubicin therapy of malign neoplasm in rats. *Oxidation communications*. 2024, vol. 47, issue 2, str. 310-326, [COBISS.SI-ID 202347267].

INJAC, Rade, PERŠE, Martina, ŠTRUKELJ, Borut, DJORDJEVIČ, Aleksandar N. Investigation of protective effects of fullereneol in vivo in chronic nephropathy during doxorubicin therapy of malign neoplasm in rats. *Oxidation communications*. 2024, vol. 47, issue 1, str. 10-27, [COBISS.SI-ID 192423683].

INJAC, Rade, DJORDJEVIČ, Aleksandar N., ŠTRUKELJ, Borut. Preliminary investigation of organ-protective effects of fullereneol in vivo in acute toxicity during doxorubicin therapy in healthy pigs. *RPS pharmacy and pharmacology reports*. 2024, vol. 3, str. 1-15, [COBISS.SI-ID 186771459].

INJAC, Rade, SERTIČ, Miranda, KOČEVAR GLAVAČ, Nina. Analysis of doxorubicin and fullereneol in rat serum by micellar electrokinetic capillary chromatography. *Acta pharmaceutica*. 2024, vol. 74, no. 3, str. 495-509, [COBISS.SI-ID 206042115].

JANEŽ, Špela, GUZELJ, Samo, JAKOPIN, Žiga. Linker chemistry and connectivity fine-tune the immune response and kinetic solubility of conjugated NOD2/TLR7 agonists. *Bioconjugate chemistry*. 2024, vol. 35, iss. 11, str. 1723-1731, [COBISS.SI-ID 211169539].

JANEŽ, Špela, GUZELJ, Samo, KOCBEK, Petra, DE Vlieger, Eveline A., SLÜTTER, Bram, JAKOPIN, Žiga. Distinctive immune signatures driven by structural alterations in desmuramylpeptide NOD2 agonists. *Journal of medicinal chemistry*. 2024, vol. 67, iss. 19, str. 17585-17607, [COBISS.SI-ID 209432835].

JAPELJ, Nuša, KEREK KOS, Mojca, JOŠT, Maja, KNEZ, Lea. Impact of changes in antihypertensive medication on treatment intensity at hospital discharge and 30 days afterwards. *Frontiers in pharmacology*. 2024, vol. 15, [article no.] 1376002, 10 str., [COBISS.SI-ID 204037891].

JAPELJ, Nuša, KNEZ, Lea, PETEK, Davorina, HORVAT, Nejc. Improving the feasibility of deprescribing proton pump inhibitors : GPs' insights on barriers, facilitators, and strategies. *Frontiers in pharmacology*. 2024, vol. 15, [article no.] 1468750, str. 1-11, [COBISS.SI-ID 209382915].

JAZBAR, Janja, LOCATELLI, Igor, KOS, Mitja. Sedative load and anticholinergic burden among older adults in Slovenia over a decade : potential for optimization of pharmacotherapy. *Acta pharmaceutica*. 2024, vol. 74, no. 2, str. 329-341, [COBISS.SI-ID 191433475].

JOŠT, Maja, KEREK KOS, Mojca, KOS, Mitja, KNEZ, Lea. Effectiveness of pharmacist-led medication reconciliation on medication errors at hospital discharge and healthcare utilization in the next 30 days : a pragmatic clinical trial. *Frontiers in pharmacology*. 2024, vol. 15, [article no.] 1377781, 10 str., [COBISS.SI-ID 190699779].

JOŠT, Maja, KNEZ, Lea, KOS, Mitja, KEREK KOS, Mojca. Pharmacist-led hospital intervention reduces unintentional patient-generated medication discrepancies after hospital discharge. *Frontiers in pharmacology*. 2024, vol. 15, [article no.] 1483932, 9 str., [COBISS.SI-ID 212762883].

JOUKHAN, Ahmad, KONONENKO, Veno, BELE, Tadeja, SOLLNER DOLENC, Marija, PEIGNEUR, Steve, LOPES PINHEIRO-JUNIOR, Ernesto, TYTGAT, Jan, TURK, Tom, KRIŽAJ, Igor, DROBNE, Damjana. Attenuation of nicotine effects on A549 lung cancer cells by synthetic  $\alpha 7$  nAChR antagonists APS7-2 and APS8-2. *Marine drugs*. 2024, vol. 22, iss. 4, 14 str., [COBISS.SI-ID 190758147].

JOUKHAN, Ahmad, KONONENKO, Veno, SOLLNER DOLENC, Marija, HOČEVAR, Matej, TURK, Tom, DROBNE, Damjana. Modulation of the effect of cisplatin on nicotine-stimulated A549 lung cancer cells using analog of marine sponge toxin loaded in gelatin nanoparticles. *Nanomaterials*. 2024, vol. 14, iss. 9, str. 1-15, [COBISS.SI-ID 194256387].

JOŽEF, Maj, LOCATELLI, Igor, BRECL JAKOB, Gregor, SAVŠEK, Lina, ŠURLAN POPOVIČ, Katarina, ŠPICLIN, Žiga, ROT, Uroš, KOS, Mitja. Psychometric evaluation of the 5-item Medication Adherence Report Scale questionnaire in persons with multiple sclerosis. *PloS one*. 2024, vol. 19, issue 3, [article no.] e0294116, 13 str., [COBISS.SI-ID 188641539].

KAC, Przemyslaw R., GONZALEZ-ORTIZ, Fernando, EMERŠIČ, Andreja, DULEWICZ, Maciej, KOUTARAPU, Srinivas, TURTON, Michael, AN, Yang, SMIRNOV, Denis, KULCZYŃSKA-PRZYBIK, Agnieszka, VARMA, Vijay R., GREGORIČ KRAMBERGER, Milica, ČUČNIK, Saša, ROT, Uroš, et al. Plasma p-tau212 antemortem diagnostic performance and prediction of autopsy verification of Alzheimer's disease neuropathology. *Nature communications*. 2024, vol. 15, iss. [article no.] 2615, str. 1-16, [COBISS.SI-ID 192269315].

KANTUREYEVA, Aigerim, USTENOVA, Gulbaram, ZVONAR POBIRK, Alenka, MOMBEKOV, Serzhan, KOILYBAYEVA, Moldir, AMIR-KHANOVA, Akerke, GEMEJIYEVA, Nadezhda, MAMUROVA, Assem, KOČEVAR GLAVAČ, Nina. Ceratocarpus arenarius : botanical characteristics, proximate, mineral composition, and cytotoxic activity. *Molecules*. 2024, vol. 29, iss. 2, art. 384, 14 str., [COBISS.SI-ID 180871683].

KARAS KUŽELIČKI, Nataša, ŠMID, Alenka, VIDMAR, Maša, KEK, Tina, EBERLINC, Andreja, GERŠAK, Borut, MAZIČ, Uroš, MLINARIČ-RAŠČAN, Irena, GERŠAK, Ksenija. Higher incidence of common polymorphisms in the genes of folate and methionine cycles in children with orofacial clefts and congenital heart defects compared to their unaffected siblings. *Birth defects research*. 2024, vol. 116, iss. 11, 11 str., [COBISS.SI-ID 213546755].

KNEZ, Damijan, WANG, Fen, DUAN, Wen-Xiang, HRAST, Martina, GOBEC, Stanislav, CHENG, Xiao-Yu, WANG, Xiao-Bo, MAO, Cheng-Jie, LIU, Chun-Feng, FRLAN, Rok. Development of novel aza-stilbenes as a new class of selective MAO-B inhibitors for the treatment of Parkinson's disease. *Bioorganic chemistry*. 2024, vol. 153, art. 107877, 22 str., [COBISS.SI-ID 211330051].

KODRIČ, Ana, KOS, Mitja. Slovenske klinične smernice in priporočila = Slovenian clinical guidelines and recommendations. *Farmaceutski vestnik : strokovno glasilo slovenske farmacije*. 2024, letn. 75, št. 3, str. 213-219. [COBISS.SI-ID 203842819].

KODRIČ, Ana. Obravnava sodelovanja pacientov pri zdravljenju z zdravili s strani zdravnikov in farmacevtov v Sloveniji = Medication adherence management in physician's and pharmacist's practices in Slovenia. *Farmacevtski vestnik : strokovno glasilo slovenske farmacije*. 2024, letn. 75, št. 1, str. 3-12, [COBISS.SI-ID 191375363].

KOKOT, Hana, KOKOT, Boštjan, PIŠLAR, Anja, ESIH, Hana, GABRIČ, Alen, URBANČIČ, Dunja, EL, Rojbin, URBANČIČ, Iztok, PAJK, Stane. Amphiphilic coumarin-based probes for live-cell STED nanoscopy of plasma membrane. *Bioorganic chemistry*. 2024, vol. 150, art. 107554, 10 str. [COBISS.SI-ID 198949635].

KOKOT, Maja, HRAST, Martina, FENG, Lipeng, MITCHENALL, Lesley A, LAWSON, David M., MAXWELL, Anthony, PARISH, Tanya, MINOVSKI, Nikola, ANDERLUH, Marko. Structural aspects of Mycobacterium tuberculosis DNA gyrase targeted by novel bacterial topoisomerase inhibitors. *ACS Medicinal Chemistry Letters*. 2024, vol. 15, iss. 12, str. 2164-2170, [COBISS.SI-ID 215946755].

KOLLÁR, Levente, GRABRIJAN, Katarina, HRAST, Martina, BOZOVIČAR, Krištof, IMRE, Tímea, FERENCZY, György G., GOBEC, Stanislav, KESERŰ M., György. Boronic acid inhibitors of penicillin-binding protein 1b : serine and lysine labelling agents. *Journal of enzyme inhibition and medicinal chemistry*. 2024, vol. 39, iss. 1, str. 1-14, [COBISS.SI-ID 191268611].

KORENJAK, Boštjan, TRATENŠEK, Armando, ARKO, Matevž, ROMOLO, Anna, HOČEVAR, Matej, KISOVEC, Matic, BERRY, Maxence, BEDINA ZAVEC, Apolonija, DROBNE, David, VOVK, Tomaž, IGLIČ, Aleš, NEMEC SVETE, Alenka, ERJAVEC, Vladimira, KRALJ-IGLIČ, Veronika. Assessment of extracellular particles directly in diluted plasma and blood by interferometric light microscopy : a study of 613 human and 163 canine samples. *Cells*. 2024, vol. 13, issue 24, [article no.] 2054, str. 1-21, [COBISS.SI-ID 219502851].

KORŠIČ, Špela, OSREDKAR, Joško, ŠMID, Lojze, STEBLOVNIK, Klemen, POPOVIČ, Mark, LOCATELLI, Igor, TRONTELJ, Jurij, POPOVIČ, Peter. Idarubicin-loaded drug-eluting microspheres transarterial chemoembolization for intermediate stage hepatocellular carcinoma : safety, efficacy, and pharmacokinetics. *Radiology and oncology*. 2024, vol. 58, no. 4, str. 517-526, vii, [COBISS.SI-ID 210906883].

KOŠUTA, Daniel, NOVAKOVIČ, Marko, BOŽIČ MIJOVSKI, Mojca, JUG, Borut. Acute effects of high intensity interval training versus moderate intensity continuous training on haemostasis in patients with coronary artery disease. *Scientific reports*. 2024, vol. 14, iss. 1, [article no.] 1963, str. 1-9, [COBISS.SI-ID 182369283].

KOVAČEVIĆ, Mila, PAUDEL, Amrit, PLANINŠEK, Odon, BERTONI, Serena, PASSERINI, Nadia, ZUPANČIČ, Ožbej, ALVA, Carolina, GERMAN ILIČ, Ilija, ZVONAR POBIRK, Alenka. The comparison of melt technologies based on mesoporous carriers for improved carvedilol dissolution. *European Journal of Pharmaceutical Sciences*. 2024, vol. 202, 13 str., [COBISS.SI-ID 205524483].

KOVAČEVIĆ, Mila, ZVONAR POBIRK, Alenka, GERMAN ILIČ, Ilija. The effect of polymeric binder type and concentration on flow and dissolution properties of SMEDDS loaded mesoporous silica-based granules. *European Journal of Pharmaceutical Sciences*. 2024, vol. 193, 11 str., [COBISS.SI-ID 169225987].

KRAJCAR, Dejan, VELUŠČEK, Dejan, GRABNAR, Iztok. Machine learning driven bioequivalence risk assessment at an early stage of generic drug development. *European journal of pharmaceuticals and biopharmaceutics*. 2024, vol. 205, 10 str., [COBISS.SI-ID 213536259].

KRANJC, Jaka, KRAMER, Lovro, MIKELJ, Miha, ANDERLUH, Marko, PIŠLAR, Anja, BRINC, Matjaž. Modulating antibody N-glycosylation through feed additives using a multi-tiered approach. *Frontiers in bioengineering and biotechnology*. 2024, vol. 12, [article no.] 1448925, 13 str., [COBISS.SI-ID 246929411].

KREFT, Klemen, LAVRIČ, Zoran, GRADIŠAR CENTA, Urška, MIHELČIČ, Mohor, SLEMENIK PERŠE, Lidija, DREU, Rok. Correlating mechanical and rheological filament properties to processability and quality of 3D printed tablets using multiple linear regression. *International journal of pharmaceuticals*. 2024, vol. 651, 14 str., [COBISS.SI-ID 182047747].

KROFIČ, Martina, TAVČAR-KALCHER, Gabrijela, VOVK, Tomaž, ŽEGURA, Bojana, LUSA, Lara, TOZON, Nataša, NEMEC SVETE, Alenka. Supplementation of vitamin E as an addition to a commercial renal diet does not prolong survival of cats with chronic kidney disease. *BMC veterinary research*. 2024, vol. 20, [article no.] 308, str. 1-13, [COBISS.SI-ID 201505027].

KRŽIŠNIK, Nika, KURENT, Ema, ROŠKAR, Robert. A comprehensive analytical approach for quality control of collagen in food supplements. *Marine drugs*. 2024, vol. 22, iss. 10, 21 str., [COBISS.SI-ID 209976579].

KULOVEC, Domen, PETRAVIČ, Luka, MIKLIČ, Rok, BURGER, Evgenija, KEŠE, Urša, POLJANŠEK, Eva, TOMŠIČ, Gašper, PINTARIČ, Tilen, LOPES, Miguel, TURNŠEK, Ema, GADŽIJEV, Andrej, STRNAD, Matej. Uncontrolled donation potential after circulatory death in Slovenia could lead to more organ donations: extrapolation of SiOHCA study data. *Inquiry : journal of health care organization, provision, and financing*. 2024, vol. 61, str. 1-9, [COBISS.SI-ID 211903747].

KURALT, Vid, FRLAN, Rok. Navigating the chemical space of ENR Inhibitors : a comprehensive analysis. *Antibiotics*. 2024, vol. 13, iss. 3, [article no.] 252, 27 str., [COBISS.SI-ID 229600771].

LAN, Shouang, HUANG, Huangjiang, LIU, Wenjun, XU, Chao, LEI, Xiang, DONG, Wennan, LIU, Jinggong, YANG, Shuang, COTMAN, Andrej Emanuel, ZHANG, Qi, FANG, Xinqiang. Asymmetric transfer hydrogenation of cyclobutenediones. *Journal of the American Chemical Society*. 2024, vol. 146, iss. 7, str. 4942-4957, [COBISS.SI-ID 186768899].

LEBAN, Marta, VODOPIVEC, Tina, HAUER, Martina, BÖHM, Ernst, MENCIN, Nina, POTUŠEK, Sandra, THOMPSON, Andrej, TRONTELJ, Jurij, ŠTRANCAR, Aleš, SEKIRNIK, Rok. Determination of linearized pDNA template in mRNA production process using HPLC. *Analytical and bioanalytical chemistry*. 2024, vol. 416, iss. 10, str. 2389-2398, [COBISS.SI-ID 191333379].

LEBAR, Blaž, LEKIČ, Tinkara, KOŠIR, Pija, KASTELIC, Miha, ZIDAR, Mitja, MRAVLJAK, Janez, PAJK, Stane. Polysorbate stability : effects of packaging materials, buffers, counterions, and pH. *International journal of pharmaceuticals*. 2024, vol. 665, 8 str., [COBISS.SI-ID 208616195].

LEBAR, Blaž, OREHOVA, Marija Vjačeslavovna, JAPELJ, Boštjan, ŠPRAGER, Ernest, PODLIPEC, Rok, KNAFLIČ, Tilen, URBANČIČ, Iztok, KNEZ, Benjamin, ZIDAR, Mitja, CERAR, Jure, MRAVLJAK, Janez, ŽULA, Aleš, ARČON, Denis, PLAVEC, Janez, PAJK, Stane. A multifaceted approach to understanding protein-buffer interactions in biopharmaceuticals. *European journal of pharmaceuticals and biopharmaceutics*. 2025, vol. 206, [article no.] 114582, str. 1-12, [COBISS.SI-ID 219264771].

LEBAR, Blaž, ZIDAR, Mitja, MRAVLJAK, Janez, ŠINK, Roman, ŽULA, Aleš, PAJK, Stane. Alternative buffer systems in biopharmaceutical formulations and their effect on protein stability. *Acta pharmaceutica*. 2024, vol. 74, no. 3, str. 479–493, [COBISS.SI-ID 197188099].

MARTINC, Boštjan, GRABNAR, Iztok, MILOSHESKA, Daniela, LORBER, Bogdan, VOVK, Tomaž. A cross-sectional study comparing oxidative stress in patients with epilepsy treated with old and new generation antiseizure medications. *Medicina*. 2024, vol. 60, issue 8 [article no.] 1299, str. 1-15, [COBISS.SI-ID 204223235].

MENG, Xiangjian, LAN, Shouang, CHEN, Ting, LUO, Haotian, ZHU, Lixuan, CHEN, Nanchu, LIU, Jinggong, YANG, Shuang, COTMAN, Andrej Emanuel, ZHANG, Qi, FANG, Xinqiang. Catalytic asymmetric transfer hydrogenation of acylboronates : BMIDA as the privileged directing group. *Journal of the American Chemical Society*. 2024, vol. 146, iss. 29, str. 20357-20369, [COBISS.SI-ID 200207107].

MERZEL ŠABOVIĆ, Eva Klara, KRANER ŠUMENJAK, Tadeja, BOŽIČ MIJOVSKI, Mojca, JANIĆ, Miodrag. Arterial function is preserved in successfully treated patients with psoriasis vulgaris. *Science progress*. 2024, vol. 107, iss. 4, 17 str., [COBISS.SI-ID 213565699].

MIHALOVITS, Levente M., KOLLÁR, Levente, BAJUSZ, Dávid, KNEZ, Damijan, BOZOVIČAR, Krištof, IMRE, Tímea, FERENCZY, György G., GOBEC, Stanislav, KESERÜ M., György. Molecular mechanism of labelling functional cysteines by heterocyclic thiones. *Chem-PhysChem*. 2024, vol. 25, no. 1, art. e202300596, 11 str., [COBISS.SI-ID 171662083].

MILOSHESKA, Daniela, ROŠKAR, Robert, VOVK, Tomaž, LORBER, Bogdan, GRABNAR, Iztok, TRONTELJ, Jurij. An LC-MS/MS method for quantification of lamotrigine and its main metabolite in dried blood spots. *Pharmaceuticals*. 2024, vol. 17, no. 4, [article no.] 449, 16 str., [COBISS.SI-ID 191424771].

MLINARIČ, Matej, JEKOVEC-VRHOVŠEK, Maja, NEUBAUER, David, FRANCE ŠTIGLIC, Alenka, OSREDKAR, Joško. Association between autism spectrum disorder, trace elements, and intracranial fluid spaces. *International journal of molecular sciences*. 2024, vol. 25, issue 15, [article no.] 8050, str. 1-16, [COBISS.SI-ID 203689475].

MLINARIĆ, Zvonimir, TURKOVIĆ, Lu, BABIĆ, Ivor, SILOVSKI, Tajana, KOČEVAR GLAVAČ, Nina, SERTIĆ, Miranda. Development, cross-validation and greenness assessment of capillary electrophoresis method for determination of ALP in pharmaceutical dosage forms - an alternative to liquid chromatography. *RSC advances*. 2024, vol. 14, iss. 45, str. 32876-32882, [COBISS.SI-ID 212337411].

MOHD, Hana, DOPIERAŁA, Katarzyna, ZIDAR, Anže, VIRANI, Amitkumar, MICHNIAK-KOHN, Bozena B. Effect of edge activator combinations in transethosomal formulations for skin delivery of thymoquinone via Langmuir technique. *Scientia pharmaceutica*. 2024, vol. 92, no. 2, 16 str., [COBISS.SI-ID 196924419].

OBLAK, Adrijana, HRIBAR, Maša, HRISTOV, Hristo, GREGORIČ, Matej, BLAZNIK, Urška, OSREDKAR, Joško, KUŠAR, Anita, ŽMITEK, Katja, LAVRIŠA, Živa, ZALETEL, Tjaša, KRHIN, Blaž, PRAVST, Igor, GABERŠČEK, Simona, ZALETEL, Katja. Interpreting urinary iodine concentration : effects of urine dilution and collection timing. *European journal of clinical nutrition*. 2024, vol. 78, str. 1105-1110. [COBISS.SI-ID 205173251].

OGRIČ, Manca, ŠVEC, Tinka, MRAK POLJŠAK, Katjuša, LAKOTA, Katja, PODOVŠOVNIK, Eva, KOLOPP-SARDA, Marie Nathalie, HOČEVAR, Alojzija, ČUČNIK, Saša. Insights into the immunological description of cryoglobulins with regard to detection and characterization in Slovenian rheumatological patients. *Immunologic research*. 2024, vol. 72, str. 185-196, [COBISS.SI-ID 171557379].

ONELÖV, Liselotte, THEODORSSON, Elvar, BOŽIČ MIJOVSKI, Mojca, MAVRI, Alenka. Clot time ratio (CTR) and relation to treatment outcome in patients with atrial fibrillation treated with Rivaroxaban. *Thrombosis journal*. 2024, vol. 22, str. 1-8, [COBISS.SI-ID 195819011].

ONELÖV, Liselotte, BOŽIČ MIJOVSKI, Mojca, MAVRI, Alenka. Clot time ratio (CTR) and treatment outcomes in Apixaban treated atrial fibrillation patients. *Scientific reports*. 2024, vol. 14, str. 1-10, [COBISS.SI-ID 195828995].

OSREDKAR, Joško, BAJRIĆ, Amila, MOŽINA, Hugon, LIPAR, Luka, JERIN, Aleš. Cardiac troponins I and T as biomarkers of cardiomyocyte injury - advantages and disadvantages of each. *Applied sciences*. 2024, vol. 14, iss. 14, art. 6007, str. 1-12, [COBISS.SI-ID 201335299].

OSREDKAR, Joško, VIČIČ, Vid, HRIBAR, Maša, BENEDIK, Evgen, SIUKA, Darko, JERIN, Aleš, ČEGOVIK PRIMOŽIČ, Urška, FABJAN, Teja, KUMER, Kristina, PRAVST, Igor, ŽMITEK, Katja, et al. Seasonal variation of total and bioavailable 25-hydroxyvitamin D [25(OH)D] in the healthy adult Slovenian population. *Acta Biochimica Polonica*. 2024, vol. 71, 13 str., [COBISS.SI-ID 207062787].

OŠLAK, Maša, STRES, Blaž, HORVAT, Nejc. Etično presojanje študentov farmacije na primerih etičnih dilem iz lekarniške dejavnosti = Ethical judgment of pharmacy studentsthrough analysis of ethical dilemmas in pharmacy practice. *Farmacevtski vestnik : strokovno glasilo slovenske farmacije*. 2024, letn. 75, št. 1, str. 13-20, [COBISS.SI-ID 191377923].

PAJOUHESHNIA, Romin, GINI, Rosa, GUTIERREZ, Lia, SWERTZ, Morris A., HYDE, Eleanor, STURKENBOOM, Miriam C., ARANA, Alejandro, FRANZONI, Carla, LOCATELLI, Igor, JAZBAR, Janja, ŽEROVNIK, Špela, KOS, Mitja, et al. Metadata for data discoverability and study replicability in observational Studies (MINERVA) : development and pilot of a metadata list and catalogue in Europe. *Pharmacoepidemiology and drug safety*. 2024, vol. 33, iss. 8, e5871, 12 str., [COBISS.SI-ID 204502019].

PALIR, Neža, STAJNKO, Anja, MAZEJ, Darja, FRANCE ŠTIGLIC, Alenka, SNOJ TRATNIK, Janja, RUNKEL, Agneta Annika, MARC, Janja, HORVAT, Milena, FALNOGA, Ingrid, et al. Maternal APOEε2 as a possible risk factor for elevated prenatal Pb levels. *Environmental research*. 2024, vol. 260, [article no.] 119583, str. 1-12, [COBISS.SI-ID 202005507].

PASHA, Flaka, URBANČIČ, Dunja, MAXHUNI, Rufadie, KRASNIQI, Shaip, GRAJČEVCI UKA, Violeta, MLINARIČ-RAŠČAN, Irena. Prevalence and treatment outcomes of childhood acute lymphoblastic leukemia in Kosovo. *Cancers*. 2024, vol. 16, no. 11, 13 str., [COBISS.SI-ID 196879107].

PAVČNIK, Lara, LOCATELLI, Igor, TRDAN LUŠIN, Tina, ROŠKAR, Robert. Matrixing designs for shelf-life determination of parenteral drug product : a comparative analysis of full and reduced stability testing design. *Pharmaceutics*. 2024, vol. 16, iss. 9, [article no.] 1117, 12 str., [COBISS.SI-ID 206005507].

PAVLIN, Mojca, ŠKORJA, Nives, KANDUŠER, Maša, PIRKMAJER, Sergej. Importance of the electrophoresis and pulse energy for siRNA-mediated gene silencing by electroporation in differentiated primary human myotubes. *BioMedical engineering online*. 2024, vol. 23, no. 1, [article no.] 47, str. 1-19, [COBISS.SI-ID 195841283].

PELETTĀ, Allegra, MARMY, Aurélie, GUZELJ, Samo, RAMOS BARROS, Alcidia, JAKOPIN, Žiga, BORCHARD, Gerrit. Preliminary results on novel adjuvant combinations suggest enhanced immunogenicity of whole inactivated pandemic influenza vaccines. *Frontiers in drug delivery*. 2024, vol. 4, 14 str., [COBISS.SI-ID 209452291].

PETHŐ, Zoltán, PAJTÁS, Dávid, PIGA, Martina, MAGYAR, Zsuzsanna, ZAKANY, Florina, KOVACS, Tamas, ZIDAR, Nace, PANYI, Gyorgy, VARGA, Zoltán, PAPP, Ferenc. A synthetic flavonoid derivate in the plasma membrane transforms the voltage-clamp fluorometry signal of CiHv1. *FEBS journal*. 2024, vol. 291, iss. 11, str. 2354-2371, [COBISS.SI-ID 187494403].

PETRAVIČ, Luka, MIKLIČ, Rok, BURGER, Evgenija, KEŠE, Urša, KULOVEC, Domen, POLJANŠEK, Eva, TOMŠIČ, Gašper, PINTARIČ, Tilen, LOPES, Miguel, BREZOVNIK, Miha, STRNAD, Matej. Enhancing bystander intervention: insights from the utstein analysis of out-of-hospital cardiac arrests in Slovenia. *Medicina*. 2024, vol. 60, issue 8, [article no.] 1227, str. [1]-16, [COBISS.SI-ID 203308035].

PIGA, Martina, VARGA, Zoltán, FEHÉR, Ádám, PAPP, Ferenc, KORPOS PINTYE-GYURI, Eva, BANGERA, Kavva C., FRLAN, Rok, ILAŠ, Janez, DERNOVŠEK, Jaka, TOMAŠIČ, Tihomir, ZIDAR, Nace. Identification of a novel structural class of Hv1 inhibitors by structure-based virtual screening. *Journal of chemical information and modeling*. 2024, vol. 64, iss. 12, str. 4850-4862, [COBISS.SI-ID 199158019].

PLANINŠEK PARFANT, Timeja, SKUBE, Taja, ROŠKAR, Robert. A robust analytical method for simultaneous quantification of 13 low-molecular-weight N-Nitrosamines in various pharmaceuticals based on solid phase extraction and liquid chromatography coupled to high-resolution mass spectrometry. *European Journal of Pharmaceutical Sciences*. 2024, vol. 192, art. 106633, 12 str., [COBISS.SI-ID 174906883].

PODOBNIK, Boris, DEMŠAR, Lenart, ŠARC, Lucija, JERIN, Aleš, OSREDKAR, Joško, TRONTELJ, Jurij, ROŠKAR, Robert, BRVAR, Miran. N-acetylcysteine ineffective in alleviating hangover from binge drinking : a clinical study. *Toxics*. 2024, vol. 12, iss. 8, [article no.] 585, str. 1-9, [COBISS.SI-ID 206065923].

POJE, Goran, ŠAKIČ, Davor, MARINOVICH, Marina, YOU, Jiangyang, TARPLEY, Michael, WILLIAMS, Kevin P., GOLUB, Nikolina, DERNOVŠEK, Jaka, TOMAŠIČ, Tihomir, BEŠIČ, Erim, RAJIČ, Zrinka, et al. Unveiling the antiglioblastoma potential of harmicins, harmine and ferrocene hybrids : current recommendations and future perspectives. *Acta pharmaceutica*. 2024, vol. 74, iss. 4, str. 595-612, [COBISS.SI-ID 206354179].

POLJŠAK, Nina, KOČEVAR GLAVAČ, Nina. Analytical evaluation and antioxidant activity of welected vegetable oils to support evidence-based use in dermal products. *Natural product communications*. 2024, vol. 19, no. 9, 10 str., [COBISS.SI-ID 210219011].

POPIT, Sara, ŠEROD, Klara, LOCATELLI, Igor, ŠTUHEC, Matej. Prevalence of attention-deficit hyperactivity disorder (ADHD) : systematic review and meta-analysis. *European psychiatry*. 2024, vol. 67, iss. 1, e68, 23 str., [COBISS.SI-ID 210852867].

POŽENEL, Primož, ZAJC, Kaja, ŠVAJGER, Urban. Factor of time in dendritic cell (DC) maturation : short-term activation of DCs significantly improves type 1 cytokine production and T cell responses. *Journal of translational medicine*. 2024, vol. 22, art. no. 541, str. 1-14, [COBISS.SI-ID 198061059].

PRAŠNIKAR, Monika, BJELOŠEVIČ ŽIBERNA, Maja, GOSENCA MATJAŽ, Mirjam, AHLIN GRABNAR, Pegi. Novel strategies in systemic and local administration of therapeutic monoclonal antibodies. *International journal of pharmaceuticals*. 2024, vol. 665, part a, 13 str., [COBISS.SI-ID 213575427].

PRAŠNIKAR, Monika, PROJ, Matic, BJELOŠEVIČ ŽIBERNA, Maja, LEBAR, Blaž, KNEZ, Benjamin, KRŽIŠNIK, Nika, ROŠKAR, Robert, GOBEC, Stanislav, GRABNAR, Iztok, ŽULA, Aleš, AHLIN GRABNAR, Pegi. The search for novel proline analogs for viscosity reduction and stabilization of highly concentrated monoclonal antibody solutions. *International journal of pharmaceuticals*. 2024, vol. 655, 13 str., [COBISS.SI-ID 191471875].

PYLKKÖ, Tuomas, TOMAŠIČ, Tihomir, POSO, Antti, TAMMELA, Päivi. Virtual screening assisted search for inhibitors of the translocated intimin receptor of enteropathogenic Escherichia Coli. *ChemBioChem*. 2024, vol. 25, iss. 2, art. e202300638, 7 str., [COBISS.SI-ID 172610307].

RAGALLER, Franziska, SJULE, Ellen, BALIM UREM, Yagmur, SCHLEGEL, Jan, EL, Rojbin, URBANČIČ, Dunja, URBANČIČ, Iztok, BLOM, Hans, SEZGIN, Erdinc. Quantifying fluorescence lifetime responsiveness of environment-sensitive probes for membrane fluidity measurements. The journal of physical chemistry. *B*. 2024, vol. 128, iss. 9, str. 2154-2167, [COBISS.SI-ID 187187203].

RAVNIKAR, Matjaž, ŠTRUKELJ, Borut, OTAŠEVIČ, Biljana, SIRŠE, Mateja. Fomentariol, a Fomes fomentarius compound, exhibits anti-diabetic effects in fungal material : an in vitro analysis. *Nutraceuticals*. 2024, iss. 2, vol. 4, str. 273–282, [COBISS.SI-ID 196357635].

REJC, Luka, KNEZ, Damijan, MOLINA-AGUIRRE, Gabriela, ESPARGARÓ, Alba, Kladnik, Jerneja, MEDEN, Anže, BLINC, Lana, LOZINŠEK, Matic, JANSEN-VAN VUUREN, Ross D., ROGAN, Matic, MARTEK, Bruno Aleksander, MLAKAR, Jernej, DREMELJ, Ana, PETRIČ, Andrej, GOBEC, Stanislav, BRESJANAC, Mara, KOŠMRLJ, Janez, et al. Probing Alzheimer’s pathology : exploring the next generation of FDDNP analogues for amyloid  $\beta$  detection. *Biomedicine & pharmacotherapy*. 2024, vol. 175, [article no.] 116616, str. 1-19, [COBISS.SI-ID 194778883].

REPAS, Jernej, FRLIČ, Tjaša, SNEDEC, Tadeja, KOPITAR, Andreja Nataša, SOURIJ, Harald, JANEŽ, Andrej, PAVLIN, Mojca. Physiologically achievable concentration of 2-deoxy-D-glucose stimulates IFN- $\gamma$  secretion in activated T cells in vitro. *International journal of molecular sciences*. 2024, vol. 25, iss. 19, [article no.] 10384, str. 1-21, [COBISS.SI-ID 208868867].

ROTTER, Ana, VARAMOGIANNI-MAMATSI, Despoina, ZVONAR POBIRK, Alenka, GOSENCA MATJAŽ, Mirjam, CUETO, Mercedes, DÍAZ MARRERO, Ana R., ATAK, Eylem, BERDEN ZRIMEC, Maja, BOSCH, Daniel, GRIGALIONYTE-BEMBIČ, Ernesta, KLUN, Katja, ZIDAR, Luen, BAEBLER, Špela, LUKIČ-BILELA, Lada, et al. Marine cosmetics and the blue bioeconomy : from sourcing to success stories. *iScience*. 2024, iss. 12, [art. no.] 111339, str. 1-50, [COBISS.SI-ID 216306179].

RUSSO, Camilla, RUSSOMANNO, Pasquale, D’AMORE, Vincenzo Maria, ALFANO, Antonella Ilenia, SANTORO, Federica, GUZELJ, Samo, GOBEC, Martina, AMATO, Jussara, PAGANO, Bruno, JAKOPIN, Žiga, et al. Discovery of 2,3-diaminoindole derivatives as a novel class of NOD antagonists. *Journal of medicinal chemistry*. 2024, vol. 67, iss. 4, str. 3004-3017, [COBISS.SI-ID 183800579].

SARAF, Isha, JAKASANOVSKI, Ognen, STANIĆ LJUBIN, T., KRALJ, Eva, PETEK, Boštjan, WILLIAMS, Jason D., NESHCHADIN, Dmytro, GESCHEIDT, Georg, PERHAVEC, Petra, GERMAN ILIČ, Ilija, et al. Investigation of the influence of copovidone properties and hot-melt extrusion process on level of impurities, in vitro release, and stability of an amorphous solid dispersion product. *Molecular pharmaceuticals*. 2024, vol. 21, iss. 11, str. 5703-5715, [COBISS.SI-ID 211461635].

SCHOSS, Katja, KOČEVAR GLAVAČ, Nina. Supercritical CO2 extraction vs. hexane extraction and cold pressing : comparative analysis of seed oils from six plant species. *Plants*. 2024, vol. 13, issue 23, [article no.] 3409, 16 str., [COBISS.SI-ID 217733635].

SECCI, Daniela, DISTINTO, Simona, ONALI, Alessia, SANNA, Erica, LUPIA, Antonio, DEMURU, Laura, ATZENI, Giulia, COTTIGLIA, Filippo, MELEDDU, Rita, ANGELI, Andrea, et al. New structural features of isatin dihydrothiazole hybrids for selective carbonic anhydrase inhibitors. *ACS Medicinal Chemistry Letters*. 2024, vol. 15, iss. 11, str. 1860-1865, [COBISS.SI-ID 204916483].

SENJOR, Emanuela, PIRRO, Martina, ŠVAJGER, Urban, PRUNK, Mateja, SABOTIČ, Jerica, JEWETT, Anahid, HENSBERGEN, Paul J., PERIŠIČ, Milica, KOS, Janko. Different glycosylation profiles of cystatin F alter the cytotoxic potential of natural killer cells. *Cellular and molecular life sciences*. 2024, vol. 81, iss. 1, art. 8, 19 str., [COBISS.SI-ID 177482499].

SHARMA, Kuldeepak, ZAJC, Irena, ALBREHT, Alen, ŽIBERNA, Lovro. Inhibition of biliverdin reductase diminished the protective activity of bilirubin and biliverdin against oxidative stress-induced injury in human vascular endothelium. *Acta chimica slovenica*. 2024, vol. 71, no. 4, str. 627-645, [COBISS.SI-ID 220977155].

SLIVNIK, Matevž, NAVODNIK-PRELOŽNIK, Maja, JAPELJ FIR, Mojca, JAZBAR, Janja, ČEBRON LIPOVEC, Nanča, LOCATELLI, Igor, LAUZON, Hélène Liette, URBANČIČ-ROVAN, Vilma, et al. A randomized, placebo-controlled study of chitosan gel for the treatment of chronic diabetic foot ulcers (the CHITOWOUND study. *BMJ open diabetes research and care*. 2024, vol. 12, no. 3, [article no.] e004195, 10 str., [COBISS.SI-ID 199834883].

SLUGA, Janja, TOMAŠIČ, Tihomir, ANDERLUH, Marko, HRAST, Martina, BAJC, Gregor, SEVŠEK, Alen, MARTIN, Nathaniel I., PIETERS, Roland J., NOVIČ, Marjana, VENKO, Katja. Targeting N-acetylglucosaminidase in Staphylococcus aureus with iminosugar inhibitors. *Antibiotics*. 2024, vol. 13, iss. 8, [article no.] 751, str. 1-12, [COBISS.SI-ID 204113923].

SMRDEL, Lara, LOCATELLI, Igor, ZVER, Samo, GOBEC, Martina. A systematic review and meta-analysis of carfilzomib-associated thrombocytopenia as an adverse event in patients with multiple myeloma. *Therapeutic advances in hematology*. 2024, vol. 15, str. 1-16, [COBISS.SI-ID 215304451].

STERLE, Maša, HABJAN, Eva, PIGA, Martina, PERŠOLJA, Peter, DURCIK, Martina, DERNOVŠEK, Jaka, ZIDAR, Nace, ILAŠ, Janez, ACCETTO, Tomaž, KIKELJ, Danijel, PETERLIN-MAŠIČ, Lucija, TOMAŠIČ, Tihomir, COTMAN, Andrej Emanuel, ZEGA, Anamarija, et al. Development of narrow-spectrum topoisomerase-targeting antibacterials against mycobacteria. *European journal of medicinal chemistry*. 2024, vol. 276, [article no.] 116693, 15 str., [COBISS.SI-ID 203570947].

STOJAN, Jure, PESARESI, Alessandro, MEDEN, Anže, LAMBA, Dorian. Disentangling the formation, mechanism, and evolvement of the covalent methanesulfonyl fluoride acetylcholinesterase adduct : insights into an aged-like inactive complex susceptible to reactivation by a combination of nucleophiles. *Protein science*. 2024, vol. 33, iss. 5, [article no.] e4977, 14 str., [COBISS.SI-ID 223742467].

STOJANOV, Spase, PLAVEC, Tina Vida, ZUPANČIČ, Špela, BERLEC, Aleš. Modified vaginal lactobacilli expressing fluorescent and luminescent proteins for more effective monitoring of their release from nanofibers, safety and cell adhesion. *Microbial cell factories*. 2024, vol. 23, art. 333, 16 str. [COBISS.SI-ID 220071939].

STRAŠEK BENEDIK, Nika, DOLŠAK, Ana, ŠVAJGER, Urban, SOSIČ, Izidor, GOBEC, Stanislav, SOVA, Matej. Structural pptimization and biological evaluation of oxoxazolo[5,4-d]pyrimidines as selective Toll-like receptor 7 agonists. *ACS omega*. 2024, vol. 9, iss. 2, str. 2362-2382, [COBISS.SI-ID 179643395].

SZALAI, Tibor Viktor, BAJUSZ, Dávid, BÖRZSEI, Rita, ZSIDÓ, Balázs Zoltán, ILAŠ, Janez, FERENCZY, György G., HETÉNYI, Csaba, KESERÜ M., György. Effect of water networks on ligand binding : computational predictions vs experiments. *Journal of chemical information and modeling*. 2024, vol. 64, no. 23, str. 8980-8998, [COBISS.SI-ID 218384643].

ŠMID, Alenka, ŠTAJDOHAR, Miha, MILEK, Miha, URBANČIČ, Dunja, KARAS KUŽELIČKI, Nataša, TAMM, Riin, METSPALU, Andres, MLINARIČ-RAŠČAN, Irena. Transcriptome analysis reveals involvement of thiopurine S-methyltransferase in oxidation-reduction processes. *European Journal of Pharmaceutical Sciences*. 2024, vol. 192, 10 str., [COBISS.SI-ID 171049219].

ŠMID, Alenka, URBANČIČ, Dunja, VREVC ŽLAJPAH, Jaka, STOLLAROVA, Natalia, PRELOG, Tomaž, KAVČIČ, Marko, JAZBEC, Janez, MLINARIČ-RAŠČAN, Irena, KARAS KUŽELIČKI, Nataša, 4th ESPT summer school. Genetic profiling of NUDT15 in the Slovenian population. *Pharmacogenomics*. 2024, vol. 25, no. 12-13, str. 515-525, [COBISS.SI-ID 213081347].

ŠPRAGER, Ernest, MÖLLER, Jens, LIN, Yuh sien, REISINGER, Veronika, BRATKOVIČ, Tomaž, LUNDER, Mojca, VAŠL, Jožica, KRAJNC, Aleksander. Identification of acyl-protein thioesterase-1 as a polysorbate-degrading host cell protein in a monoclonal antibody formulation using activity-based protein profiling. *Journal of pharmaceutical sciences*. 2024, vol. 113, iss. 8, str. 2128-2139, [COBISS.SI-ID 197191939].

ŠTERN, Alja, NOVAK, Matjaž, KOLOŠA, Katja, TRONTELJ, Jurij, ŽABKAR, Sonja, ŠENTJURC, Tjaša, FILIPIČ, Metka, ŽEGURA, Bojana. Exploring the safety of cannabidiol (CBD) : a comprehensive in vitro evaluation of the genotoxic and mutagenic potential of a CBD isolate and extract from Cannabis sativa L. *Biomedicine & pharmacotherapy*. 2024, vol. 177, [article no.] 116969, str. 1-13, [COBISS.SI-ID 200108803].

ŠVAJGER, Urban, KOLAR, Matic, KOBOLD, Andrej, DROBNIČ, Matej. Mechanisms of treatment effects using allogeneic, umbilical cord-derived mesenchymal stromal stem cells (MSCs) in knee osteoarthritis : a pharmacological clinical study protocol. *Trials*. 2024, vol. 25, article no. 533, str. 1-11, [COBISS.SI-ID 204350979].

TAVČAR, Eva, VIDAČ, Marko. Experimental investigation and thermodynamic modelling of cannabidiol and curcumin in different solvents. *Journal of molecular liquids*. 2024, vol. 410, [article no.] 125511, str. 1-10, [COBISS.SI-ID 203694083].

TEMOVA RAKUŠA, Žane, ROŠKAR, Robert. Content-related quality control of water- and fat-soluble vitamins in fortified non-alcoholic beverages. *Nutrients*. 2024, vol. 16, iss. 22, [article no.] 3872, 17 str., [COBISS.SI-ID 215092483].

TKALEC, Žiga, ANTIGNAC, Jean-Philippe, BANDOW, Nicole, BÉEN, Frederic M., BELOVA, Lidia, BESSEMS, Jos, LE BIZEC, Bruno, KOSJEK, Tina, ROŠKAR, Robert, TRONTELJ, Jurij, et al. Innovative analytical methodologies for characterizing chemical exposure with a view to next-generation risk assessment. *Environment international*. 2024, vol. 186, [article no.] 108585, 16 str. [COBISS.SI-ID 191818755].

TOLEDANO-PINEDO, Mireia, DIEZ-IRIEPA, Daniel, PORRO-PÉREZ, Alicia, SCHÄKER-HÜBNER, Linda, HANL, Maria, SAMADI, Abdelouahid, ALMENDROS, Pedro, IRIEPA, Isabel, KNEZ, Damijan, GOBEC, Stanislav, et al. Contilistat, a new multitarget small polyfunctionalized indole derivative. *Synlett*. 2024, vol. , no. , [COBISS.SI-ID 219132675].

TOLEDANO-PINEDO, Mireia, PORRO-PÉREZ, Alicia, SCHÄKER-HÜBNER, Linda, ROMERO, Fernando, DONG, Min, SAMADI, Abdelouahid, ALMENDROS, Pedro, IRIEPA, Isabel, KNEZ, Damijan, GOBEC, Stanislav, et al. Contilisant+Tubastatin A hybrids : polyfunctionalized indole derivatives as new HDAC inhibitor-based multitarget small molecules with In vitro and in vivo activity in neurodegenerative diseases. *Journal of medicinal chemistry*. 2024, vol. 67, no. 18, str. 16533-16555, [COBISS.SI-ID 209613059].

TRATENŠEK, Armando, LOCATELLI, Igor, GRABNAR, Iztok, DROBNE, David, VOVK, Tomaž. Oxidative stress-related biomarkers as promising indicators of inflammatory bowel disease activity : a systematic review and meta-analysis. *Redox biology*. 2024, vol. 77, 14 str., [COBISS.SI-ID 209789443].

TROBEC, Katja, GRABNAR, Iztok, TRONTELJ, Jurij, LAINŠČAK, Mitja, KEREK KOS, Mojca. Population pharmacokinetics of ramipril in patients with chronic heart failure : a real-world longitudinal study. *Acta pharmaceutica*. 2024, vol. 74, no. 2, str. 315-328, [COBISS.SI-ID 194982915].

UGOVŠEK, Sabina, REHBERGER LIKOZAR, Andreja, LEVSTEK, Tina, TREBUŠAK PODKRAJŠEK, Katarina, ZUPAN, Janja, ŠEBEŠTJEN, Miran. Haplotype of the lipoprotein(a) gene variants rs10455872 and rs3798220 is associated with parameters of coagulation, fibrinolysis, and inflammation in patients after myocardial infarction and highly elevated lipoprotein(a) values. *International journal of molecular sciences*. 2024, vol. 25, iss. 2 [article no.] 736, str. 1-14, [COBISS.SI-ID 180713731].

UŠAJ, Marko, PAVLIN, Mojca, KANDUŠER, Maša. Feasibility study for the use of gene electrotransfer and cell electrofusion as a single-step technique for the generation of activated cancer cell vaccines. *The journal of membrane biology*. 2024, vol. 257, no. 5-6, str. 377-389, [COBISS.SI-ID 204778499].

VAN KLAVEREN, Sjors, HASSAN, Mujtaba, HÅKANSSON, Maria, JOHNSON, Richard E., LARSSON, Jessica, JAKOPIN, Žiga, ANDERLUH, Marko, LEFFLER, Hakon, TOMAŠIČ, Tihomir, NILSSON, Ulf. Galectin-8N-selective 4-halophenylphthalazinone-galactals double  $\pi$  stack in a unique pocket. *ACS Medicinal Chemistry Letters*. 2024, vol. 15, iss. 8, str. 1319-1324, [COBISS.SI-ID 203686403].

VAN VLIET, Ella, ČEBRON LIPOVEC, Nanča, VAN DER GOOT, Marloes, ABTAHI, Shahab, RIBEIRO-VAZ, Inês, POPLAVSKA, Elita, DERMIKI-GKANA, Foteini, OIKONOMOU, Chara, DELIGIANNI, Elena, KOS, Mitja, et al. Impact of regulatory risk communication on thrombosis with thrombocytopenia syndrome for COVID-19 adenovirus vector vaccines on European Healthcare Professionals. *Pharmacoepidemiology and drug safety*. 2024, vol. 33, iss. 12, [article e70057], 14 str., [COBISS.SI-ID 216692483].

VITEK, Mercedes, MEDOŠ, Žiga, LAVRIČ, Zoran, JERAS, Matjaž, PLANINŠEK, Odon, ZVONAR POBIRK, Alenka, GOSENCA MATJAŽ, Mirjam. Highly biocompatible lamellar liquid crystals based on hempseed or flaxseed oil with incorporated betamethasone dipropionate : a bioinspired multi-target dermal drug delivery system for atopic dermatitis treatment. *International journal of nanomedicine*. 2024, vol. 19, str. 13687-13715, [COBISS.SI-ID 220158979].

VITEK, Mercedes, GOSENCA MATJAŽ, Mirjam. Clinical application of hempseed or flaxseed oil-based lyotropic liquid crystals : evaluation of their impact on skin barrier function. *Acta pharmaceutica*. 2024, vol. 74, no. 2, str. 301-313, [COBISS.SI-ID 180928771].

VOGRINC, David, REDENŠEK TRAMPUŽ, Sara, BLAGUS, Tanja, TROŠT, Maja, GREGORIČ KRAMBERGER, Milica, EMERŠIČ, Andreja, ČUČNIK, Saša, GORIČAR, Katja, DOLŽAN, Vita. Genetic variability of incretin receptors affects the occurrence of neurodegenerative diseases and their characteristics. *Heliyon*. 2024, vol. 10, iss. 20, [article no.] e39157, str. 1-9, [COBISS.SI-ID 214994947].

VOLČANŠEK, Špela, LUNDER, Mojca, JANEŽ, Andrej. Patterns of health enhancing physical activity in older patients with diabetes mellitus = Modes d'activité physique chez les personnes âgées atteintes de diabète. *Science & sports*. 2024, vol. 39, iss.2, str. 162-169, [COBISS.SI-ID 194792707].

VRŠČAJ, Lucija Ana, MARC, Janja, OSTANEK, Barbara. Towards an enhanced understanding of osteoanabolic effects of PTH-induced microRNAs on osteoblasts using a bioinformatic approach. *Frontiers in endocrinology*. 2024, vol. 15, [article no.] 1380013, str. 1-15, [COBISS.SI-ID 203698435].

WEISS, Veronika, GOBEC, Martina, JAKOPIN, Žiga. Halogenation of common phenolic household and personal care product ingredients enhances their AhR-modulating capacity. *Chemosphere*. 2024, vol. 350, [art. no. 141116], 9 str., [COBISS.SI-ID 179509251].

ZAJEC, Živa, DERNOVŠEK, Jaka, CINGL, Jernej, OGRIS, Iza, GEDGAUDAS, Marius, ZUBRIENÉ, Asta, MITROVIĆ, Ana, GOLIČ GRDOLNIK, Simona, GOBEC, Martina, TOMAŠIČ, Tihomir. New class of Hsp90 C-terminal domain inhibitors with anti-tumor properties against triple-negative breast cancer. *Journal of medicinal chemistry*. 2024, vol. 67, no. 15, str. 12984-13018, [COBISS.SI-ID 203626243].

ZHAO, Zhifei, DONG, Wennan, LIU, Jinggong, YANG, Shuang, COTMAN, Andrej Emanuel, ZHANG, Qi, FANG, Xinqiang. Catalytic asymmetric transfer hydrogenation of  $\beta,\gamma$ -unsaturated  $\alpha$ -diketones. *Journal of the American Chemical Society*. 2024, vol. 146, iss. 49, str. 33543-33560, [COBISS.SI-ID 219189251].

ZIDAR, Anže, ZUPANČIČ, Špela, KRISTL, Julijana, JERAS, Matjaž. Development of a novel in vitro cell model for evaluation of nanofiber mats immunogenicity. *International journal of pharmaceuticals*. 2024, vol. 650, 12 str., [COBISS.SI-ID 179201027].

ZIDAR, Anže, ZUPANČIČ, Špela, KRISTL, Julijana, JERAS, Matjaž. Impact of polycaprolactone, alginate, chitosan and zein nanofiber physical properties on immune cells for safe biomedical applications. *International journal of biological macromolecules*. 2024, vol. 282, [art. no.] 137029, part 3, 11 str., [COBISS.SI-ID 213564163].

ZIDAR, Nace, ONALI, Alessia, PERŠOLJA, Peter, BENEDETTO TIZ, Davide, DERNOVŠEK, Jaka, SKOK, Žiga, DURCIK, Martina, COTMAN, Andrej Emanuel, HRAST, Martina, ZEGA, Anamarija, PETERLIN-MAŠIČ, Lucija, ILAŠ, Janez, TOMAŠIČ, Tihomir, KIKELJ, Danijel, et al. Improved N-phenylpyrrolamide inhibitors of DNA gyrase as antibacterial agents for high-priority bacterial strains. *European journal of medicinal chemistry*. 2024, vol. 278, 19 str., [COBISS.SI-ID 206357251].

ZIDAR, Nace, COTMAN, Andrej Emanuel, SINNIGE, Wessel, BENEK, Ondřej, BARANČOKOVA, Michaela, ZEGA, Anamarija, PETERLIN-MAŠIČ, Lucija, TOMAŠIČ, Tihomir, ILAŠ, Janez, KIKELJ, Danijel, et al. Exploring the interaction of N-(benzothiazol-2-yl)pyrrolamide DNA gyrase inhibitors with the GyrB ATP-binding site lipophilic floor : a medicinal chemistry and QTAIM study. *Bioorganic & Medicinal Chemistry*. 2024, vol. 109, art. 117798, 16 str., [COBISS.SI-ID 199171075].

ZORMAN, Maša, KOKOT, Maja, ZDOVC, Irena, ŠENEROVIĆ, Lidija, MANDIĆ, Mina, ZIDAR, Nace, COTMAN, Andrej Emanuel, DURCIK, Martina, PETERLIN-MAŠIČ, Lucija, MINOVSKI, Nikola, ANDERLUH, Marko, HRAST, Martina. Enhancing antibacterial efficacy : combining novel bacterial topoisomerase inhibitors with efflux pump inhibitors and other agents against gram-negative bacteria. *Antibiotics*. 2024, vol. 13, iss. 11, [article] 1081, 13 str., [COBISS.SI-ID 214794499].

ZORMAN, Maša, HRAST, Martina, KOKOT, Maja, MINOVSKI, Nikola, ANDERLUH, Marko. The overview of development of novel bacterial topoisomerase inhibitors effective against multidrug-resistant bacteria in an academic environment : from early hits to in vivo active antibacterials. *European Journal of Pharmaceutical Sciences*. 2024, vol. 192, 7 str., [COBISS.SI-ID 171802883].

ZUPAN, Janja, STRAŽAR, Klemen. Synovium-derived and bone-derived mesenchymal stem/stromal cells from early OA patients show comparable in vitro properties to those of non-OA patients. *Cells*. 2024, vol. 13, issue 15, [article no.] 1238, str. 1-19, [COBISS.SI-ID 205085187].

ZUPANC, Mojca, PRIMC, Gregor, DULAR, Matevž, PETKOVŠEK, Martin, ROŠKAR, Robert, ZAPLOTNIK, Rok, TRONTELJ, Jurij. Proof-of-concept for removing micropollutants through a combination of sub-atmospheric-pressure non-thermal plasma and hydrodynamic (super)cavitation. *Ultrasonics Sonochemistry*. 2024, vol. 111, [art. no.] 107110, str. 1-12, [COBISS.SI-ID 212810499].

ZVONAR POBIRK, Alenka, ROŠKAR, Robert, BEŠTER-ROGAČ, Marija, GAŠPERLIN, Mirjana, GOSENCA MATJAŽ, Mirjam. The impact of phospholipid-based liquid crystals' microstructure on stability and release profile of ascorbyl palmitate and skin performance. *Molecules*. 2024, vol. 29, iss. 13, [article no.] 3173, str. 1-20, [COBISS.SI-ID 200578819].

ŽNIDARŠIČ, Neža, GRGUREVIČ, Neža, NEMEC SVETE, Alenka, MEDEN, Anže, SNOJ, Tomaž. A comparison of cognitive decline in aged mice and mice treated with aftin-4. *Scientific reports*. 2024, vol. 14, [article no.] 28320, str. [1-16], [COBISS.SI-ID 215571459].

## PREGLEDNI ZNANSTVENI ČLANKI / REVIEW ARTICLES

BAJC ČESNIK, Ana, ŠVAJGER, Urban. The issue of heterogeneity of MSC-based advanced therapy medicinal products—a review. *Frontiers in cell and developmental biology*. 2024, vol. 12, [article no.] 1400347, 20 str., [COBISS.SI-ID 204354307].

BRATKOVIČ, Tomaž, ZAHIROVIČ, Abida, BIZJAK, Maruša, RUPNIK, Maja, ŠTRUKELJ, Borut, BERLEC, Aleš. New treatment approaches for Clostridioides difficile infections : alternatives to antibiotics and fecal microbiota transplantation. *Gut microbes*. 2024, vol. 16, iss. 1, str. 1-34, [COBISS.SI-ID 192145923].

BRATKOVIČ, Tomaž. Biološka zdravila za zdravljenje multiple skleroze = Biologicals for the treatment of multiple sclerosis. *Farmacevtski vestnik : strokovno glasilo slovenske farmacije*. 2024, letn. 75, št. 2, str. 120-129, [COBISS.SI-ID 196220163].

DOBRAVC VERBIČ, Matej, GRABNAR, Iztok, EYER, Florian, BRVAR, Miran. Acute quetiapine intoxication : relationship between ingested dose, serum concentration and clinical presentation-structured literature review and analysis. *Journal of xenobiotics*. 2024, vol. 14, iss. 4, str. 1570-1594, [COBISS.SI-ID 213961987].

FERJANČIČ BENETIK, Svit, KNEZ, Damijan, OBREZA, Aleš, KOŠAK, Urban, GOBEC, Stanislav. Dual inhibition of butyrylcholinesterase and p38α mitogen-activated protein kinase : a new approach for the treatment of Alzheimer's disease. *Pharmacology & therapeutics*. 2024, vol. 264, [article no.] 108748, 13 str., [COBISS.SI-ID 215038723].

FILIPIČ, Brankica, UŠJAK, Dušan, HRAST, Martina, OLJAČIČ, Slavica, MILENKOVIČ, M. Evaluation of novel compounds as anti-bacterial or anti-virulence agents. *Frontiers in cellular and infection microbiology*. 2024, vol. 14, [art.]. 1370062, str. 1-20, [COBISS.SI-ID 197041155].

FRANKO, Nina, KODILA, Anja, SOLLNER DOLENC, Marija. Adverse outcomes of the newly emerging bisphenol A substitutes. *Chemosphere*. 2024, vol. 346, str. 143147-1-143147-15, [COBISS.SI-ID 205121539].

FRANKO, Nina, SOLLNER DOLENC, Marija. Toksikološki vidiki izpostavitve bisfenolom v termičnem papirju = Toxicological aspects of exposure to bisphenols from thermal paper. *Farmacevtski vestnik : strokovno glasilo slovenske farmacije*. 2024, letn. 75, št. 3, str. 220-229, [COBISS.SI-ID 203613699].

GALLORINI, Marialucia, CARRADORI, Simone, PANIERI, Emiliano, SOVA, Matej, SASO, Luciano. Modulation of NRF2 : biological dualism in cancer, targets and possible therapeutic applications. *Antioxidants & redox signaling*. 2024, vol. 40, no. 10-12, str. 636-662. [COBISS.SI-ID 170276867].

GOSENCA MATJAŽ, Mirjam, AHLIN GRABNAR, Pegi. Subkutana dostava terapevtskih proteinov in peptidov = Subcutaneous delivery of therapeutic proteins and peptides. *Farmacevtski vestnik : strokovno glasilo slovenske farmacije*. 2024, letn. 75, št. 2, str. 94-104, [COBISS.SI-ID 196197635].

GRILC, Blaž. Tehnološki vidiki mukoadhezivnih filmov za bukalno aplikacijo zdravilnih učinkovin = Technological aspects of mucoadhesive films for buccal application of drugs. *Farmacevtski vestnik : strokovno glasilo slovenske farmacije*. 2024, letn. 75, št. 5, str. 339-346, [COBISS.SI-ID 221023491].

GRILC, Nina Katarina, ZUPANČIČ, Špela, KRISTL, Julijana. Napredek in izzivi v razvoju živih bioterapevtskih izdelkov = Progress and challenges in the development of living biotherapeutic products. *Farmacevtski vestnik : strokovno glasilo slovenske farmacije*. 2024, letn. 75, št. 5, str. 367-374, [COBISS.SI-ID 221097987].

HORVAT, Selena, KOS, Janko, PIŠLAR, Anja. Multifunctional roles of  $\gamma$ -enolase in the central nervous system : more than a neuronal marker. *Cell & bioscience*. 2024, vol. 14, art. 61, 16 str., [COBISS.SI-ID 197795331].

HORVAT, Selena, PIŠLAR, Anja. Pomen nevrotrofičnih dejavnikov pri nevrodegenerativnih boleznih = The importance of neurotrophic factors in neurodegenerative disorders. *Farmacevtski vestnik : strokovno glasilo slovenske farmacije*. 2024, letn. 75, št. 1, str. 55-64, [COBISS.SI-ID 192526339].

JAPELJ, Nuša, HORVAT, Nejc, KNEZ, Lea, KOS, Mitja. Deprescribing : an umbrella review. *Acta pharmaceutica*. 2024, vol. 74, no. 2, str. 249–267, [COBISS.SI-ID 180914947].

JOŽEF, Maj, LOCATELLI, Igor, BRECL JAKOB, Gregor, KOS, Mitja, ROT, Uroš. Sodelovanje in vztrajanje bolnikov z multiplo sklerozo pri zdravljenju z zdravili = Medication adherence and persistence in persons with multiple sclerosis. *Zdravniški vestnik : glasilo Slovenskega zdravniškega društva*. 2024, letn. 93, št. 9-10, str. 313-328, [COBISS.SI-ID 205213443].

JUG, Ana, BRATKOVIČ, Tomaž, ILAŠ, Janez. Biolayer interferometry and its applications in drug discovery and development. *TrAC. Trends in analytical chemistry*. 2024, vol. 176, art. 117741, 13 str., [COBISS.SI-ID 194830851].

KANDUŠER, Maša, MLINARIČ-RAŠČAN, Irena. Vloga elektroporacije pri pripravi zdravil za napredno zdravljenje = The role of electroporation for the preparation of advanced therapy medicinal products. *Farmacevtski vestnik : strokovno glasilo slovenske farmacije*. 2024, letn. 75, št. 3, str. 241-249, [COBISS.SI-ID 203828995].

KARAS KUŽELIČKI, Nataša, DOLJAK, Bojan. Congenital heart disease and genetic changes in folate/methionine cycles. *Genes*. 2024, vol. 15, iss. 7, [article no.] 872, 1-28 str., [COBISS.SI-ID 200561923].

KIRBUS, Klemen, ŽIBERNA, Lovro, KOCBEK, Petra. Organi na čipu in njihov potencial pri vrednotenju nanodostavnih sistemov = Organs-on-a-chip and their potential in characterization of nanodelivery systemses. *Farmacevtski vestnik : strokovno glasilo slovenske farmacije*. 2024, letn. 75, št. 5, str. 357-366, [COBISS.SI-ID 220980739].

KLEMENC, Nejc, STERLE ZOREC, Barbara, ZVONAR POBIRK, Alenka. Razvoj dostavnih sistemov na osnovi liposomov z vgrajeno kakovostjo = Development of liposomal delivery systems by quality by design approach. *Farmacevtski vestnik : strokovno glasilo slovenske farmacije*. 2024, letn. 75, št. 1, str. 43-54, [COBISS.SI-ID 196360195].

KODRIČ, Meta, NOV LJAN, Jona, PREGELJC, Domen, REBSELJ, Jure, RIHTARŠIČ, Martin, ČASAR, Zdenko. Licenciranje v farmacevtski industriji : trendi in strategije = Licensing in the pharmaceutical industry : trends and strategies. *Anali PAZU HD*. 2024, letn. 10, št. 1/2, str. 47-87, [COBISS.SI-ID 220643331].

KOKONDOSKA GRGICH, Vesna, SINREIH, Maša, ŠTRUKELJ, Borut, JOVCHEVSKA, Ivana. 3D biotisk kot inovativna metoda za modeliranje raka jajčnikov = 3D bioprinting as an inovative method for modeling ovarian cancer. *Farmacevtski vestnik : strokovno glasilo slovenske farmacije*. 2024, letn. 75, št. 3, str. 230-240, [COBISS.SI-ID 203201027].

KOLENC, Petra, NOVAK, Doroteja, KROŠELJ, Marko. Radiofarmaki v teranostiki = Theranostic radiopharmaceuticals. *Farmacevtski vestnik : strokovno glasilo slovenske farmacije*. 2024, letn. 75, št. 2, str. 83-93, [COBISS.SI-ID 196302339].

KONTRA, Bence, MUCSI, Zoltán, ILAŠ, Janez, DUNKEL, Petra. The quinoline photoremovable group (PPG) platform - a medicinal chemist's approach for photocage development and applications. *Medicinal research reviews*. 2025, vol. 45, iss. 5, str. 1423-1451, [COBISS.SI-ID 245245955].

KOVAČEVIČ, Mila, GAŠPERLIN, Mirjana, ZVONAR POBIRK, Alenka. Lipid-based systems with precipitation inhibitors as formulation approach to improve the drug bioavailability and/or lower its dose : a review. *Acta pharmaceutica*. 2024, vol. 74, no. 2, str. 201-227, [COBISS.SI-ID 197047043].

LOVŠIN, Nika, GANGUPAM, Bhavani, BERGANT MARUŠIČ, Martina. The intricate interplay between APOBEC3 proteins and DNA tumour viruses. *Pathogens*. 2024, vol. 13, no. 3, art. 187, 19 str., [COBISS.SI-ID 186197507].

LUNDER, Mojca. Biološke učinkovine pri Alzheimerjevi bolezni = Biopharmaceuticals for Alzheimer's disease. *Farmacevtski vestnik : strokovno glasilo slovenske farmacije*. 2024, letn. 75, št. 2, str. 130-136, [COBISS.SI-ID 196225795].

PEČAR FONOVIČ, Urša, KOS, Janko, MITROVIČ, Ana. Compensational role between cathepsins. *Biochimie*. 2024, vol. 226, str. 62-76, [COBISS.SI-ID 193579011].

PEČNIK, Matija, BJELOŠEVIČ ŽIBERNA, Maja, DREU, Rok, AHLIN GRABNAR, Pegi. Pregled metod za optimizacijo procesa liofilizacije in vrednotenje liofilizatov = Overview of methods for optimising the lyophilisation process and evaluation of lyophilisates. *Farmacevtski vestnik : strokovno glasilo slovenske farmacije*. 2024, letn. 75, št. 5, str. 347-356, [COBISS.SI-ID 220087555].

POREDOŠ, Tanja, TRAMPUŽ, Marko, GORNIK, Tjaša, NAVERŠNIK, Klemen, SINREIH, Maša, PIRC, Samo, ČASAR, Zdenko. Why and How to Control P-Chirality in Phosphorothioated Therapeutic Oligonucleotides : Analytical Challenges Associated with Determination of Stereochemical Composition. *Organic process research & development*. 2024, vol. 28, iss. 12, str. 4194–4214, [COBISS.SI-ID 220292611].

PRAŠNIKAR, Monika, GAŠPERLIN, Mirjana, AHLIN GRABNAR, Pegi. Subkutano apliciranje monoklonskih protiteles = Subcutaneous injection of monoclonal antibodies : pregled sestavin zdravil : review of medicine ingredientse. *Zdravniški vestnik : glasilo Slovenskega zdravniškega društva*. 2024, vol. 93, no. 1-2, str. 36-43, [COBISS.SI-ID 177454595].

PURIČ, Edvin, NILSSON, Ulf, ANDERLUH, Marko. Galectin-8 inhibition and functions in immune response and tumor biology. *Medicinal research reviews*. 2024, vol. 44, iss. 5, str. 2236-2265, [COBISS.SI-ID 192485379].

SIMŠIČ, Tilén, PLANINŠEK, Odon, BAUMGARTNER, Ana. Taste-masking methods in multiparticulate dosage forms with a focus on poorly soluble drugs : an umbrella review. *Acta pharmaceutica*. 2024, vol. 74, no. 2, str. 177–199, [COBISS.SI-ID 180925187].

SNAPKOW, Igor, SMITH, Nicola M., ARNESDOTTER, Emma, BEEKMANN, Karsten, BLANC, Etienne B., BRAEUNING, Albert, CORSINI, Emanuela, SOLLNER DOLENC, Marija, SUNDSTØL ERIKSEN, Gunnar, FRANKO, Nina, et al. New approach methodologies to enhance human health risk assessment of immunotoxic properties of chemicals — a PARC (Partnership for the Assessment of Risk from Chemicals) project. *Frontiers in toxicology*. 2024, vol. 6, [art.]. 1339104, str. 1-10, [COBISS.SI-ID 191888643].

ŠVAJGER, Urban, KAMENŠEK, Urška. Interleukins and interferons in mesenchymal stromal stem cell-based gene therapy of cancer. *Cytokine & growth factor reviews*. 2024, vol. 77, str. 76-90, [COBISS.SI-ID 189721347].

UGOVŠEK, Sabina, OKRAJŠEK, Renata, ZUPAN, Janja, ŠEBEŠTJEN, Miran. The role of monocytes and macrophages in the pathogenesis of heart failure. *Transplantation and regenerative medicine*. 2024, vol. 5, no. 2, str. 21-26. [COBISS.SI-ID 212181251].

URBANČIČ, Dunja, PASHA, Flaka, ŠMID, Alenka, MLINARIČ-RAŠČAN, Irena. Personalization of thiopurine therapy : current recommendations and future perspectives. *Acta pharmaceutica*. 2024, vol. 74, no. 3, str. 355-381, [COBISS.SI-ID 206023171].

ŽAGAR, Tjaša, FRLAN, Rok, KOČEVAR GLAVAČ, Nina. Using subcritical water to obtain polyphenol-rich extracts with antimicrobial properties. *Antibiotics*. 2024, vol. 13, iss. 4, [article no.] 334, 22 str., [COBISS.SI-ID 210258179].

## KRATKI ZNANSTVENI PRISPEVEK / SHORT SCIENTIFIC ARTICLES

AGRICOLA, Eleonora, AURICHE-BENICHOUE, Caroline, BAIÃO, Helena, BLANQUIE, Oriane, BODEA, Teodora, BORÁÑ, Tomáš, BORG, John Joseph, CORDO', Valentina, DI MARZO, Maria, JURKOVIČ MLAKAR, Simona, et al. The European innovation network as a hub for medicines innovation in Europe. Nature reviews. *Drug discovery*. 2024, vol. 23, no. 6, str. 405-406. [COBISS.SI-ID 194093315].

MITROVIĆ, Ana, BURDEN, Roberta E., SOFTIĆ, Adaleta, KAVČIČ, Nežka. Peptidases as a therapeutic target in anti-cancer management. *Frontiers in pharmacology*. 2024, vol. 15, [COBISS.SI-ID 192265987].

OSREDKAR, Joško, RESMAN RUS, Katarina, KORVA, Miša, KOTAR, Tadeja, HOJS-FABJAN, Tanja, JERIN, Aleš SIUKA, Darko, AVŠIČ-ŽUPANC, Tatjana. COVID-19 disease : monitoring of antibodies against SARS-CoV-2 virus in serum of a vitamin D sufficient male. *Epistimonika Chronika*. 2024, letn. 29, št. 1, str. 136-143, [COBISS.SI-ID 202722051].

TRONTELJ, Jurij, ROZMAN, Aleš, MRHAR, Aleš. Determination of remifentanyl in neonatal dried blood spots by liquid chromatography-tandem mass spectrometry. *Acta pharmaceutica*. 2024, vol. 74, no. 2, str. 343-354, [COBISS.SI-ID 195034883].

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