



Slovenian NMR Centre @ National Institute of Chemistry, Ljubljana, Slovenia

Research | 2010

Research | 1998-2009 | 2010

LIST OF PROGRAMS AND PROJECTS FINANCED BY SLOVENIAN RESEARCH AGENCY AND MINISTRY OF HIGHER EDUCATION, SCIENCE AND TECHNOLOGY WHICH COLLABORATE WITH NMR CENTRE AT NATIONAL INSTITUTE OF CHEMISTRY IN 2010

National Institute of Chemistry

Programs:

1	Chemistry and structure of biologically active compounds P.I.: Janez Plavec, program no.: P1-0242
2	Folding and Dynamics of Biomolecular Systems P.I.: Franc Avbelj, program no.: P1-0010
3	Molecular biotechnology: from dynamics of biological systems to applications P.I.: Roman Jerala, program no.: P4-0176
4	Nanoporous materials P.I.: Venceslav Kaucic, program no.: P1-0021
5	Functional food and food supplements P.I.: Irena Vovk, program no.: P1-0005
6	Specialty polymers P.I.: Majda Zigon, program no.: P2-0145
7	Micro- and nanostructured functional materials: development, physical-chemical characterization and simulation of processes P.I.: Miran Gaberscek, program no.: P2-0148
8	Functional genomics and biotechnology for health P.I.: Radovan Komel, program no.: P1-0104
9	Razvoj materialov po sol-gel postopkih in njihova uporaba v sistemih za izkoriščanje nekonvencionalnih virov energije (Slovene) P.I.: Boris Orel, program no.: P1-0030

Projects:

10	NMR študije vloge kationov za zvitje in stabilizacijo kvadrupleksov DNK (Slovene) P.I.: Janez Plavec, project no.: J1-0986
11	Infrastrukturna dejavnost KI, IP-0104 (Slovene) P.I.: Janez Plavec, project no.: 1000-09-160104
12	Novi, okolju prijazni, visokoenergijski materiali za litijeve ionske akumulatorje (Slovene) P.I.: Robert Dominko, project no.: J2-9569

13	Molekularni mehanizem prtepoznavanja dvoverižne rna virusov preko TLR3 (Slovene) P.I.: Roman Jerala, project no.: J3-0589
14	Mehanizmi zvitja in agregacije proteinov (Slovene) P.I.: Franc Avbelj, project no.: J1-2252
15	Karakterizacija interakcij ligand-receptor (Slovene) P.I. : Simona Golic Grdadolnik, project no.: J1-0317
16	Strukturno podprto načrtovanje novih inhibitorjev DNA giraz(Slovene) P.I.: Tomaz Solmajer, project no.: J1-0308
17	Fosfodiesteraza cikličnih nukleotidov iz <i>Mycobacterium tuberculosis</i>: struktura in funkcija (Slovene) P.I.: Marjetka Podobnik, project no.: L1-0378
18	Priprava eno in več dimenzionalnih nanostruktur polianilina in substituiranih polianilinov v ionskih tekočinah (Slovene) P.I.: Majda Zigon, project no.: J2-2406
19	Novi dentritski polimeri kot nosilci za kontrolirano dostavo zdravilnih učinkovin P.I.: Ema Zagar, project no.: L2-2078
20	Večfunkcionalne nanokompozitne prevleke in premazi (Slovene) P.I. : Boris Orel, project no.: L2-2239
21	Kemijska modifikacija tekstilij z uporabo sol-gel tehnologije (Slovene) P.I. : Barbara Simoncic, project no.: J2-2223
22	Kondenzirane ionske tekočine in njihova uporaba v elektrokrovnih sklopih (Slovene) P.I. : Angela Surc Vuk, project no.: J2-9531

Institute Jozef Stefan

Programs:

23	Magnetna resonanca in dielektrična spektroskopija "pametnih" novih materialov P.I.: Janez Dolinsek, project no.: P0-0125
24	Light and Matter P.I.: Martin Copic, program no.: P1-0192
25	Physics of soft matter, surfaces, and nanostructures P.I.: Slobodan Zumer, program no.: P1-0099
26	Experimental biophysics of complex systems P.I.: Janez Strancar, program no.: P1-0060
27	Inorganic Chemistry and Technology P.I.: Boris Zemva, program no.: P1-0045
28	Contemporary inorganic materials and nanotechnologies P.I.: Suvorov Danilo, program no.: P2-0091
29	Proteoliza in njena regulacija (Slovene) P.I.: Boris Turk, program no.: P1-0140
30	Kroženje snovi v okolju, snovna bilanca in modeliranje okoljskih procesov ter ocena tveganja (Slovene) P.I.: Milena Horvat, program no.: P1-0143

Faculty of Chemistry and Chemical Technology, University of Ljubljana

Program:

31	Bioinorganic and bioorganic chemistry P.I.: Peter Bukovec, program no.: P1-0134
32	Chemical engineering and technology P.I.: Matjaz Krajnc, program no.: P2-0191
33	Physical Chemistry P.I.: Vojeslav Vlachy, program no.: P1-0201
34	Synthesis, structure, properties of matters and materials P.I.: Ivan Leban, program no.: P1-0175

Projects:

35	Reaktivni intermediati pri transformacijah organskih spojin (Slovene) P.I.: Boris Sket, project no.: J1-9410
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Faculty of Pharmacy, University of Ljubljana

Programs:

36	Farmacevtska kemija: nacrtovanje, sinteza in vrednotenje ucinkovin (Slovene) P.I.: Danijel Kikelj, program no.: P1-0208
37	Farmacevtska biotehnologija: znanje za zdravje (Slovene) P.I.: Janko Kos, program no.: P4-0127
38	Farmacevtska tehnologija in biofarmacija: od dostavnih sistemov ucinkovin do terapijskih izidov zdravil (Slovene) P.I.: Ales Mrhar, program no.: P1-0189

Projects:

39	Nove zdravilne ucinkovine biotehnološkega izvora z uporabo bakteriofagnega prikaza (Slovene) P.I.: Borut Strukelj, project no.: L4-1046
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Agricultural Institute of Slovenia

Project:

40	Izdelava izotopskih analiz vzorcev vina s slovenskim geografskim poreklom (Ministrstvo za kmetijstvo, gozdarstvo in prehrano) (Slovene) P.I.: Mitja Kocjancic, Franc Cus
41	Spremljanje nekaterih parametrov kakovosti in geografskega porekla vina cviček PTP (Slovene) P.I.: Franc Cus, project no.: V4-0518

Clinical Centre Ljubljana

Project:

42	Novi vnetni kazalci: beljakovina, ki veze lipopolisaharid, endotoksin in PCT ter ATP pri kritično bolnih otrocih (Slovene) P.I.: Gorazd Kalan
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Biotechnical Faculty, University of Ljubljana

Program:

43	Biokemijska in biofizikalno kemijska karakterizacija naravnih snovi (Slovene) P.I.: Natasa Poklar Urlih, program no.: P4-0121
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Faculty of Natural Sciences and Engineering, Department of Textiles, University of Ljubljana

Program:

44	Textiles and Ecology P.I.: Barbara Simoncic, program no.: P2-0213
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TKK Serpenica

Project:

45	Sinteza tekočega nealkalnega pospešila za vezanje in strjevanje brizganega betona in vpliv pospešila na mehanske lastnosti brizganega betona (Slovene) P.I.: Luka Zevnik, project no.: Z2-1257
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Veterinary Faculty, University of Ljubljana

Program:

46	Endokrini, imunski in encimski odzivi pri zdravih in bolnih živalih (Slovene) P.I.: Natasa Poklar Urlih, program no.: P4-0121
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International projects

47	Enhancing Access and Services To East European users towards an efficient and coordinated pan-European pool of NMR capacities to enable global collaborative research & boost technological advancements, akronim: EAST-NMR, proposal no.: 228461 P.I.: Janez Plavec
48	COST MP0802: Self-assembled guanosine structures for molecular electronic devices P.I. (for NIC): Janez Plavec
49	"Why are some molecules sweet?" - NMR investigations on structure-taste relationship as revealed by the interactions between sweetener and water molecules and sweetener-cyclodextrin complexes P.I. (for NIC): Janez Plavec, project no.: BI-TR/10-12-003
50	New applications of randomly sampled NMR data sets with improved resolution P.I. (for NIC): Janez Plavec, project no.: BI-PL/10-11-007
51	NMR Study of the Interactions of Angiotensin II Receptor Antagonists P.I. (for NIC): Janez Plavec, project no.: BI-HR/10-11-005
52	Rešitev tridimenzionalne strukture PH domene onkoproteina BCR/ABL s pomčco heteronuklearne NMR metode. Prvi korak k razvoju alternativnih zdravil za zdravljenje mieloidne levkemije (Slovene) P.I. (for NIC): Igor Zhukov, project no.: BI-UA/09-10-004

53	PUREWATER - Eureka project P.I.: Venceslav Kaucic, project no.: 3211-08-000208
54	Odkrivanje fenomena zvitja proteinov preko konformacijske analize majhnih linearnih peptidov (Slovene) P.I.: Simona Golic Grdadolnik and T. Mavromoustakos, project no.: BI-CY/08-09-004
55	COST-40 Action Innovative Catalysis: New Processes and Selectivities P.I.: Barbara Mohar
56	Innovative Switchable Shading Applicances based on Nano-materials and Hybrid Electrochromic Device Configurations (INNOSHADE, Collaborative EU Project) P.I.: Boris Orel, project no.: FP7-NMP-2007-CP-200431
57	FP7-NMP-2007-CP-200431) 49. Multifunctional paint coatings for "all-polymeric" solar thermal collectors (MULTIFUNCOAT) P.I.: Boris Orel, project no.: 3211-09-000029
58	Polimerni materiali za solarne toplotne aplikacije P.I.: Michael Köhl (ISE), project no.: IEA Task 39 SHC program
59	Novel generation of polymethacrylate / zinc oxide nanocomposites for advanced applications, akronim Novapol P.I.: Zorica Crnjak Orel, ERA-NET MNT, project no: 3211-09-000031
60	Novel biotechnological approaches for utilizing carbon containing wastes to make high added value products (7. OP EU: ANIMPOL; USEFUL WASTE) P.I.: Andrej Krzan, project no.: 245084
61	COST MP 0701: Composites with Novel Functional and Structural Properties by Nanoscale Materials (COST) P.I.: Miroslav Huskic
62	Food analysis using Isotopic Techniques - Proficiency Testing Scheme (FIT-PTS) P.I.: Mitja Kocjancic, Franc Cus
63	European Union FP6 Integrated Project EUR-INTAFAR P.I.: Stanislav Gobec (FFa), project no.: LSHM-CT-2004-512138
64	European Union FP7 Collaborative Project (large scale integrating project) MAREX P.I.: Danijel Kikelj (FFa)

Centre of Excellence, acronym EN->FIST (Excellent NMR -> Future Innovation for Sustainable Technologies)

65	Solid-state nuclear magnetic resonance and studies of polymorphism P.I.: Gregor Mali, RRP1
66	Structure and analysis of organic compounds in solution with the use of NMR P.I.: Primoz Sketi, RRP2
67	Characterization of recombinant proteins and biological macromolecules in aqueous solution P.I.: Igor Zhukov, RRP3
68	Interactions of new ligands with protein targets, rational drug design P.I.: Simona Golic Grdadolnik, RRP4

69	Asymmetric synthesis: Development of new chiral ligands for metal-promoted asymmetric transformations P.I.: Barbara Mohar, RRP6
70	Qualitative and quantitative analysis of organic compounds with hyphenated techniques P.I.: Irena Vovk, RRP7
71	Study of drug delivery systems based on polymeric carriers P.I.: Ema Zagar, RRP10

Contracts with partners from industry

Krka d.d., Slovenia

72	Pogodba st. II/25-106 259 - 106632/2007 (Slovene) P.I.: Janez Plavec
73	Sodelovanje na področju kemijske sinteze (Slovene), pogodba II/19-106632/2008, št. 244/05-L08 P.I.: Barbara Mohar
74	Sinteze farmacevtskih učinkovin (Slovene) P.I.: Jernej Iskra

Pliva d.d., Zagreb

75	Pogodba o sodelovanju na področju NMR spektroskopije (Slovene) P.I.: Janez Plavec
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ECOT d.o.o., Slovenia

76	Raziskave na področju površinsko aktivnih materialov (Slovene) P.I.: Stojan Stavber
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TKK Serpenica, Slovenia

77	Razvoj novih tipov superplastifikatorjev (Slovene) P.I.: Janez Plavec, Luka Zevnik (TKK)
78	Pogodba o sodelovanju (Slovene) P.I.: Janez Plavec, Luka Zevnik (TKK)

Melamin kemična tovarna d.d. Kocevje, Slovenia

79	Pogodba o sodelovanju (Slovene) P.I.: Janez Plavec
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Fenolit d.d. Borovnica, Slovenia

80	Pogodba o sodelovanju (Slovene) P.I.: Janez Plavec
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Helios d.d. Domzale, Slovenia

81	Sodelovanje pri razvoju polimernih veziv in vgradnji nanodelcev v polimerna veziva in premaze (Slovene) P.I.: Miroslav Huskic, Miran Gaberscek
82	Hibridni nanokompozitni aditivi za funkcionalne, multifunkcionalne in inteligentne barve in smole, TIA projekt (Slovene) P.I.: Boris Orel, project no.: 2227/09-L02

83	<p>Raziskava EKO postopkov površinske zaščite kovinskih delov, št. pogodbe v okviru projekta EKOMEH - Razvoj in industrializacija ekološko inovativnih izdelokov široke potrošnje izbran za sofinanciranje na javnem razpisu "Neposredne spodbude za skupne razvojno-investicijska projekte - Projekti 2008" (Slovene) P.I.: Boris Orel, project no.: EKOMEH /1005/04/09 (271/09-L02)</p>
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