

Apel ELI-RO/RDI/2024: Proiecte de pregătire și realizare experimente la ELI-NP

Cod proiect	Titlu proiect	Acronim	Coordinator	Partener	Eligibil	
					DA	NU
ELI-RO/RDI/2024_001	Positron Annihilation Techniques for Biomedical Applications	BIOPAT	IFIN-HH	IVB	DA	
ELI-RO/RDI/2024_002	Complementary Investigations for Photon beams - High-Energy nuclear Resonant States with charged particle probes	CIPHERS	IFIN-HH	-	DA	
ELI-RO/RDI/2024_003	Development and testing of a quad detector array for dose measurements and beam diagnostics	ELI-QUADRIL	Canberra Packard SRL	UNSTPB	DA	
ELI-RO/RDI/2024_004	Femto Laser-driven Gamma Emission Optimisation for Stable Microfocus and Ultra-fast Flash Gamma Imaging Applications Development at ELI-NP	LaserGammaFlash	Accent Pro 2000 S.R.L.	IFIN-HH; INFLPR	DA condiționat de respectarea schemei ajutorului de stat cf. PI	
ELI-RO/RDI/2024_005	Laser- technology Innovation exotic Materials for Sustainable Nuclear Energy	LIMS	UAIC	-	DA	
ELI-RO/RDI/2024_006	Microscopic determination of spectral properties of nuclear excitations of different complexity and its importance in nuclear reaction	NSTAR	IFIN-HH	UB	DA	

ELI-RO/RDI/2024_007	Frontier nuclear fission studies at ELI-NP	ELITE	IFIN-HH	-	DA	
ELI-RO/RDI/2024_008	A New Scheme for Advancing Nuclear Photonics with Multi-photon Absorption Process and High-power lasers	AMAP	IFIN-HH	-	DA	
ELI-RO/RDI/2024_009	Deep learning enhanced nondestructive testing using laser-based neutron sources	DL4NDT@ELI	IFIN-HH	UNSTPB	DA	
ELI-RO/RDI/2024_010	Understanding FLASH irradiation effect on cancer cells using laser-induced very high energy electrons and in vitro tumor-on-chip assays	FLASH CANCELLS	INFLPR	IB-AR	DA	
ELI-RO/RDI/2024_011	Development of compact electromagnetic calorimeters for laser-driven experiments: novel materials and advanced computing methods	DECALE	ISS	-	DA	
ELI-RO/RDI/2024_012	High-Energy Particles and Radiation Sources / HEPaRaS	HEPaRaS	IFIN-HH	-	DA	
ELI-RO/RDI/2024_013	Gamma above neutron threshold experiments preparation: ELIGANT-TN upgrade for improved background rejection and preparatory experiments of high precision cross section measurements for photon and alpha induced reactions on ^{197}Au	GoldStandard	IFIN-HH	-	DA	

ELI-RO/RDI/2024_014	A Scheme for Polyvalent Acceleration with the Peeler Regime Concept	SPARC	IFIN-HH	IMT	DA	
ELI-RO/RDI/2024_015	Life prolongation of fs-laser mirrors through decontamination, endurance limit improvement and in situ monitoring	DELISM	INFLPR	IFIN-HH	DA	
ELI-RO/RDI/2024_016	Direct laser acceleration in the multi-PW regime for electron and photon beams generation using hollow targets	DELPHI	IFIN-HH	-	DA	
ELI-RO/RDI/2024_017	Pathways towards laser-neutron-induced radioplogic production and enhancement of FDA approved 177-Lu-based prostate cancer therapies supported by in-vitron essays	LaLuThe	IFIN-HH	IVB, RATEN ICN Pitesti	DA	
ELI-RO/RDI/2024_018	Ultrahigh-charge electron beams accelerated by laser-irradiated solid surface followed by a gas jet LWFA as the second stage	UHCE-Surf+LWFA	INFLPR	-	DA	
ELI-RO/RDI/2024_019	Enhanced proton acceleration in near critical density plasmas by engineering multi-layer targets and applications	HighProtonPLas	IFIN-HH	INFLPR; IMT	DA	
ELI-RO/RDI/2024_020	Coherent combination of high-power femtosecond laser pulses	LAS-COMB	INFLPR	IFIN-HH	DA	
ELI-RO/RDI/2024_021	LWFA-driven Gamma Source	LGS	IFIN-HH	-	DA	

ELI-RO/RDI/2024_022	Ionizing radiation-powered photodynamic therapy for targeted cancer treatment	RAY-PDT	INFLPR	IFIN-HH, UB	DA	
ELI-RO/RDI/2024_023	Neutron response of materials for nuclear and fusion reactors	EUROPA	IFIN-HH	-	DA	
ELI-RO/RDI/2024_024	Prospective studies with twisted photons in nuclear and mesoscopic systems	TINMS	UB	IFIN-HH	DA	
ELI-RO/RDI/2024_025	Development of a Neutron Beam Extraction and Transport System	DeNBExTraS	IFIN-HH	-	DA	
ELI-RO/RDI/2024_026	Extreme Light Infrastructure Target Engineering	ELITE	INFLPR	IFIN-HH	DA	
ELI-RO/RDI/2024_027	Three-dimensional scaffolds for assessing radiation effects on multicellular organoids at ELI-NP	SCAFFORGRAD	IFIN-HH	INFM	DA	
ELI-RO/RDI/2024_028	A novel laser-induced forward transfer approach for the development of mass-limited targets for ion acceleration	FLIGHT	INFLPR	IFIN-HH	DA	
ELI-RO/RDI/2024_029	Development and characterization of new polymeric composite targets for nuclear physics experiments	COMPACT	ISS	INFLPR; ICPE-CA; IFIN-HH	DA	
ELI-RO/RDI/2024_030	High-Power laser generated ultra-intense transient magnetic field molecular effects on leukemic and lymphomatous cancer cells	HiPoCell	INFLPR	IFIN-HH, UNSTPB	DA	
ELI-RO/RDI/2024_031	Advanced Metrology of Intense Laser Pulses	AMIPulse	IFIN-HH	ITIM-CJ	DA	

ELI-RO/RDI/2024_032	Tailored density plasma from liquid targets	TAPLIT	IFIN-HH	-	DA	
ELI-RO/RDI/2024_033	Development of an Assembly for the Detection and Characterization of Mixed fluxes of particles for ELI-NP	DADCM	IFIN-HH	-	DA	
ELI-RO/RDI/2024_034	Real-time diagnosis techniques of high-power laser focused beams	RTLFOCUS	UNSTPB	INFLPR	DA	
ELI-RO/RDI/2024_035	Integrating hydrogel encapsulation of lung cancer cells and GEANT4 simulations for improved understanding of cellular response to radiation / HIDRO-SIM	HIDRO-SIM	IFIN-HH	UB; INFLPR	DA	
ELI-RO/RDI/2024_036	Development of Dual Gamma and Neutron beams for the characterization of nuclear waste 2	DuGaN	IFIN-HH	-	DA	
ELI-RO/RDI/2024_037	Development and evaluation of a vacuum/low pressure chamber for investigating high energy laser pulse Interactions with organic and inorganic films	DEVELOP-LASINT	ITIM-CJ	-	DA	
ELI-RO/RDI/2024_038	Optimized design of 2D and 3D structured targets for ultra-intense laser-induced secondary sources used for materials in extreme environments	eTARGET	INFLPR	IMT; ISS	DA	

ELI-RO/RDI/2024_039	REal-time Molecular Imaging of reactive oxygen species effects in tumoral, non-tumoral and immune cells using high-power LASer and plasma Sources In the FLASH and conventional regime	REMILASI_FLASH	IFIN-HH	INFLPR; RTC Radiolog y Therapeu tic Center SRL; Spitalul Colentina	DA conditionat de respectarea schemei ajutorului de stat cf. PI	
ELI-RO/RDI/2024_040	Dose RATE Measurement and identification of biological effects in a Laser-Plasma Accelerator at ELI-NP	DRAM	IFIN-HH	UB	DA	
ELI-RO/RDI/2024_041	Reaching extreme intensities, beam pointing stability and direct laser acceleration of particles using micro-cone targets	REXINT-BPS-DLA	INFLPR	IFIN- HH; UNSTPB	DA	