



PARTNER PRESENTATION AND INTEREST IN HORIZON EUROPE PARTICIPATION

Name of the organisation	DDS DIAGNOSTIC SRL
Country	ROMANIA
Type of organisation	PRIVATE COMPANY
Short description	The research activity of DDS Diagnostics has been focused on the development of biochips and immunosensors dedicated to various applications, from biomedical to pesticide detection. We gained expertise on immobilization of various types of molecules (e.g., proteins) on microsensors, perform specific electrochemical measurement, analyze images and quantify the signal. We are developing new methods for the biofunctionalization of electrochemical sensors surfaces in order to quantify specific biomarkers with medical importance in metabolic syndrome, heart failure, detection of subpopulation of lymphocytes T involved in HIV diagnostic and identification of tumoral cells. For over 15 years, our research-development and production activity covers fields such as serum protein electrophoresis, immuno-reactions techniques, ELISA, CLIA, immunochromatography, biochips and immunosensors.
Laboratory/ Faculty Department	Research and development department
Contact person	PhD. Dana Stan
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Short description of Laboratory/ Faculty Department involved

Our laboratory is fully equipped for performing several types of analyses: Washer ELISA Rayto RT 3100. Rayto, China; Reader ELISA Rayto RT 2100C; microplates incubator ELISA și Bio-Rad Laboratories USA; Luminometer (Autobio, China), Potentiostat/Galvanostat/ZRA 1010E (Gamry, USA) pH-meter InoLab 720 Benchtop WTW, Germany; Ultrasound bath Branson 1510. USA; Digital balance Ohaus type Pioneer Model PA114CM. 2015, Centrifuge Ohaus EBA 20 Hettich, Germania; Electrophoretic system EP Line 11.1.Roco System, Romania, Incubators MEMMERT, UV-VIS Spectrophotometer HITACHI UH5300, Refrigerated centrifuge HERMLE Z326K, etc.. For more details, please visit <http://erris.gov.ro/REDID>.

The research and development department consists of a multidisciplinary team, among which medical doctors, chemists, biologists and engineers.

Expertise.

We have vast experience in applications such as: chemical functionalization of various surfaces and the immobilization of proteins/nucleic acids; antigen-antibody interaction studies; design and development of immunochromatographic tests for the detection/quantification of various analytes; protein/nucleic acids electrophoresis; ELISA; molecular biology (PCR and RT-PCR).

Involved persons. Short CV

Team members	Competence
PhD. Dana Stan	Areas of expertise: Has over 25 years of experience in medical analysis techniques (biochemistry, electrophoresis, immunoelectrophoresis, immunology), research, design and preparation of documentation for the marketing of medical devices. Developed more than 32 IVD kits, in collaboration with the DDS Diagnostic research team, that are currently available on the romanian market. Project director of 2 national projects and project responsible of 10 national research project. Author and co-author of 11 ISI scientific papers with more than 40 citations and 2 patents. H-index: 6 Brain Map ID: U-1700-038G-8104
M.D. Diana Stan	Areas of expertise: Areas of expertise: Chemical synthesis, wound assessment and monitoring, surgical and medical techniques for wound treatment. Establishing personalized treatments. Experience in regenerative medicine based on plant extracts (eg aloe vera, lavender and oranges) and platelet-enriched plasma. Author and co-author of 5 ISI-rated scientific papers with 5 citations. H-index: 1 Brain Map ID: U-1700-037V-9167
PhD. Andreea Lorena Mateescu	Areas of expertise: Microbiology of food, medicine, food and medical supplements. Performing antimicrobial activity tests on cosmetics and silver nanoparticles impregnated with volatile oils. Tests to determine the effectiveness of preservatives. Surface functionalizations for the capture of biomolecules and electrochemical methods (CV, EIS, DPV and SWV). Author and co-author of 8 scientific papers listed by ISI with over 25 citations. H-index: 3 Brain Map ID: U-1700-037K-2411
PhD. Augustin Ofițeru	Areas of expertise: Molecular biology, protein chemistry, microbiology, stem cells and environmental science, with experience in both academia and industry. Involved in several fundamental research projects in the field of life sciences and also in the fields of renewable energy (solar, biogas, biodiesel) and sustainable development (integrated agriculture and circular economy). Group leader in several laboratories and / or companies with different affiliations, with strong management and entrepreneurship skills (business planning and development, market strategy). Author and co-author of 13 scientific papers listed by ISI with over 200 citations. H-index: 7 Brain Map ID: U-1700-030L-0282
Andreea-Cristina Mirică (Ion)	Areas of expertise: Synthesis of biopolymer nanoparticles. Physico-chemical characterization methods such as FT-IR, DLS, UV-VIS. Formulation and development of new pharmaceuticals. Techniques such as: encapsulation, compression, friability. Fundamental research activities, participation in the writing and publication of scientific papers. Develops theoretical and

	experimental models. Author and co-author of 5 scientific papers listed by ISI with 9 citations. H-index: 1 Brain Map ID: U-1900-062E-1228
Diana Becheru	Areas of expertise: Four-year research activity focused on cellular and molecular biology, with applications in bone tissue engineering and regenerative medicine, by in vitro and in vivo evaluation. Actively involved in the development of graphene-based optical fluorescent biosensor for RNA and DNA detection. Author and co-author of 4 ISI-rated scientific papers with 15 citations. H-index: 2 Brain Map ID: U-1900-063C-1809
M.D. Monica Dugaesescu	Areas of expertise: Participated in projects dedicated to medical students. Two Erasmus Traineeship scholarships (Croatia and Germany) where he worked in both research and diagnostic laboratories. He participated in Integrated Applied Genetics Training, where he conducted a GWAS (Genome wide association study) for lung cancer and Medical Research education, a project he coordinated for 2 years. Author and co-author of 3 BDI scientific papers Brain Map ID: U-2000-065X-7400

If you are interested in a particular call, please indicate the Reference of the call/ Topic of interest. Potential contribution.

We are interested in the areas of intervention of Cluster 1 Health and Cluster 4 Digital, Industry and Space, namely: health throughout the life course, non-communicable and rare diseases, infectious diseases including poverty-related and neglected diseases, tools, technologies and digital solutions for health and care including personalized medicine, health care systems, manufacturing technologies and advanced materials.

Our potential contribution could be the design and manufacturing of diagnostic devices obtained using advanced materials and technologies. We are currently working with electrochemical sensors and have been involved in several projects, where sensors were designed for the detection/quantification of various analytes (drugs, specific viral antigens, inflammation markers, cardiac markers, etc.). We are also focused on developing new, cost-effective and highly performant nucleic acid-based sensors. Besides our interest in the diagnostic sector, we are involved in the development of products designed to improve the patient's life, by minimizing the symptoms of certain ailments and by the monitorization of the patient's progress during treatment. We are also interested in the development of new drugs, with increased efficacy and stability and we have significant experience in applications such as bioconjugation, liposomes synthesis, nanoparticles synthesis and natural compounds with antimicrobial, antifungal and antiviral effect.

Have you already participated in an EU funded project? If so, provide some references.

No, we have not participated in an EU funded project.