SUNUM

IZMIR BIOMEDICINE AND GENOME CENTER

TÜBİTAK MAM

KUTTAM
KOÇ UNIVERSITY RESEARCH CENTER FOR TRANSLATIONAL MEDICINE

NANOBIOTECHNOLOGIES FOR INNOVATIVE THERAPEUTIC APPROACHES FOR CANCER

GUIDE FOR APPLICANT

Version 4.0

TÜBİTAK

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History of Changes		
Version	**Date**	**Changes**
1	31.01.2024	NA
2	27.03.2024	Article 6
3	15.01.2025	Supervisor List, Timeline
4	24.01.2025	Travel Allowance

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DEFINITIONS	
Experienced Researchers	must at the date of recruitment or the deadline of the co-funded programme's call, be in possession of a doctoral degree or have at least four years of full-time equivalent research experience.
Mobility Rule	means applicants must not have resided or carried out their main activity (work, studies, etc.) in the country of the recruiting organisation or implementing partner for more than 12 months in the 36 months immediately before the deadline of the co-funded programme's call.
Coordinator (Beneficiary)	is the sole signatory to the Grant Agreement, which receives the EU funding, claims costs, and takes complete responsibility for the proper implementation of the proposed Programme, including submission of required reports, as a formal commitment.
Implementing Partners	legal entities receiving financial support from the beneficiary and implementing the MSCA COFUND Postdoctoral Programme.
Associated Partners	entities which participate in the action (e.g., providing training or secondments), but without the right to charge costs or claim contributions.
Eligible Researchers	researchers must be in possession of a doctoral degree at the deadline of the co-funded Programme's call. Researchers who have successfully defended their doctoral thesis but who have not yet formally been awarded the doctoral degree will also be considered postdoctoral researchers and will be considered eligible to apply.
Personalised Career Development Plan (PCDP)	a personal action plan to ensure that the proposed work is clearly focused on achieving its research and professional goals.
Core Management Committee	a central governing body responsible for strategic decision-making, coordination, and oversight of the NanoBio4Can Programme.
Central Management Office	a centralized administrative and organizational hub within the coordinator organization responsible for overseeing and coordinating various aspects of management and administration of the overall programme.
Program Management Offices	an administrative and organizational hub within each implementing partner organization responsible for overseeing and coordinating various aspects of management and administration of the programme in their organisations.
Background IP Declaration Form	a document used in partnerships or research agreements to outline and declare the existing intellectual property each party brings to the collaboration. Intellectual property includes patents, copyrights, trademarks, and other proprietary information or creations.
IP Ownership Protocol	a document that establishes guidelines and rules regarding intellectual property rights among stakeholders within an organization or collaboration. This type of protocol is created to regulate intellectual property within the scope of a collaboration, project, or joint venture and aims to clarify the usage and sharing of these rights among the involved parties.
Institutional IP Policy	means a set of guidelines and rules established by an organisation to govern the ownership, management, and commercialization of intellectual property created within the organisation.
Scientific Evaluation Committee (SEC)	is a group of external experts in a specific field of study or research area convened to evaluate and assess research proposals' scientific merit, quality, and feasibility.
Ethical Committee (EC)	is a group of individuals responsible for reviewing and ensuring the ethical conduct of research involving human subjects.
Interview Panel (IP)	is a group of external experts including SEC members and representatives from the host organisation to assess the qualifications, skills, and suitability of candidates for available positions.

1 INTRODUCTION

NanoBio4Can (Nanobiotechnologies for Innovative Therapeutic Approaches for Cancer) is a Postdoctoral Research Programme of a Marie Sklodowska-Curie COFUND Action funded by the European Commission and The Scientific and Technological Research Council of Türkiye (TUBITAK).

NanoBio4Can is led by Sabanci University Nanotechnology Research and Application Center (SUNUM) in collaboration with three leading Turkish research centers in life sciences namely;

- Izmir Biomedicine and Genome Center (IBG)
- TUBITAK Marmara Research Center (TUBITAK-MAM)
- Koç University Research Center for Translational Medicine (KUTTAM)

The overarching objective of the programme is to enhance the potential and future career perspectives of 24 postdoctoral fellows by providing a highly interdisciplinary & intersectoral research approach in nanobiotechnology & cancer research. In addition to state-of-the-art advanced training in basic biological and medical sciences and nanotechnology, the unique NanoBio4Can training programme is designed to include the active contribution of industry partners and clinics through secondments to equip postdoctoral fellows with transferable and business skills to help them become future innovators and entrepreneurs.

1.1 NanoBio4Can Programme

The NanoBio4Can program invites post-doctoral fellows to be an integral part of a transformative research and training initiative dedicated to revolutionizing cancer therapy. Fellows will immerse themselves in a dynamic program designed to address the critical need for innovative therapeutic approaches in the fight against cancer, with a specific focus on the application of cutting-edge nanobiotechnologies.

Fellows will engage in ground-breaking research within a collaborative and interdisciplinary environment. The project transcends traditional research boundaries, bringing together experts from diverse backgrounds such as nanotechnology, life sciences, and medical research. By fostering this inclusive approach, NanoBio4Can seeks to break down silos and create a vibrant community of researchers with a shared goal – advancing cancer therapy through innovation.

Embracing the principles of Open Science, the program places a strong emphasis on transparency and collaboration in all research activities. Your training will extend beyond acquiring research skills; it will encompass the development of essential soft skills that are highly sought after in the modern scientific landscape.

What sets NanoBio4Can apart is its active involvement of industry partners and clinical institutions. Fellows will gain practical skills that extend beyond the laboratory, preparing them to be future innovators and entrepreneurs in the field of cancer therapies. The collaboration between the healthcare industry and academia accelerates innovations and their clinical

implementation, contributing to the continued leadership of Europe in nanobiotechnology and cancer research.

NanoBio4Can will establish two calls for the recruitment of **24 excellent experienced researchers (ERs)** as the next generation of skilled scientists in the fields of nanobiotechnology and health-related applications for cancer research to carry out their research projects in one of the 4 top international recruiting organisations: SUNUM (8 ER fellows), TUBITAK-MAM (6 ER fellows), IBG (6 ER fellows) and KUTTAM (4 ER fellows).

The program's thematic areas, including drug development, targeting system development, delivery systems**, and testing and validation systems**, are pivotal in advancing our understanding and treatment of cancer. By being a part of NanoBio4Can fellows will join a global community of top-tier researchers, contributing to innovative and value-added research in the realm of cancer therapy. Together, we aim to make significant strides in the fight against this formidable disease and create a lasting impact on the future of cancer research and treatment.

1.2 Research Areas

The programme offers a bottom-up approach in which fellows will be free to choose the destination (city, supervisor, and institute) from a wide range of multidisciplinary research topics in 4 research areas:

1) Drug Development

2) Delivery Systems

3) Targeting System Development

4) Testing and Validation Systems

1.3 Host Institutions

1.3.1 Sabanci University Nanotechnology Research and Application Center (SUNUM)[1]

Established by the Turkish Ministry of Development and Sabanci Foundation in 2010, SUNUM is recognized as a Turkish national research and infrastructure hub and a prestigious actor in the R&I system aiming to increase national scientific and technological capabilities, attain a competitive position in the European R&I system, become a driver of innovation, advanced technologies, and contribute to the EU research programmes. SUNUM is located at a strategically important geographic location between Europe and Asia continents, with proximity to numerous leading industries, companies, technoparks and organized industrial zones. It contributes to scientific excellence and training of high-calibre researchers by exploiting synergies and long-term partnerships with stakeholders. It also provides an entrepreneurial opportunity in its co-learning / co-creation ecosystem, prioritising sustainable technologies, promoting and contributing to training and education in R&I, upgrading knowledge and soft skills, and underlining gender balance and women in STEM.

[1] https://sunum.sabanciuniv.edu/en

SUNUM research infrastructure includes 26 laboratories spread over a total area of 2,400m^2, including the 850m^2 Clean Room, which houses many high-resolution precision equipment required for nanotechnology and nanofabrication. Other laboratories include; the Cell Culture Laboratory, Advanced Microscopy, SUNUM-MERCK Laboratory for biosimilar drug and protein development, Electron Microscopy and Spectroscopy, Cell culture 3D Bioprinting Laboratory, Molecular Biology and Genomics, Bioanalysis and Measurement, Micro and Nanofabrication Laboratory and Cleanroom, Nanomaterials/Nanofiber Laboratory, 3D System Design and Fabrication, Materials Synthesis, Manufacturing and Characterization Laboratory and High-Performance Computing Laboratory with advanced capabilities such as design of nanoparticles as nanoscopic delivery vehicles or Genome wide identification of mutations and polymorphisms for population genetics studies.

1.3.2 Izmir Biomedicine and Genome Center (IBG)[2]

Izmir Biomedicine and Genome Center (IBG) is the first independent thematic Research Infrastructure in life sciences, located in Izmir, Türkiye. IBG's main objective is to carry out powerful research on biomedicine and genome sciences, to develop products based on medical and pharmaceutical biotechnologies using its workforce and technical infrastructure, and thus, to contribute to global science and the transformation of national industry. As of 2023, IBG hosts 32 research groups in three main pillars (i) Basic and translational research program, (ii) Technological research program, (iii) Industrial R&D program with a research focus in the fields of cancer, genomics and bioinformatics, stem cells and regeneration, immunology and infectious diseases, neuroscience and bioengineering.

IBG will provide access to its state-of-the-art core facilities and services including the following research support units: Flow Cytometry, Genomics and bioinformatics, Optical Imaging, Drug Analysis and control, Electron Microscopy, Histopathology, Lentivirus Facility, Cellular therapies, and Vivarium. In addition, 5 technology platforms will be at the disposal of ER fellows: BSL/ABSL3, IBG-BIP (Bioinformatics), IBG-Biobank (Biobanking facility and national node for the European BBMRI - Biobanking and BioMolecular resources Research Infrastructure under the European Research Infrastructure Consortium (BBMRI-ERIC), IBG-Pharma (Biomedicine development), IBG-Nevcell (Steam cell and gene therapeutics).

1.3.3 TUBITAK Marmara Research Center (TUBITAK-MAM)[3]

Since its establishment in 1972, TUBITAK Marmara Research Center (MAM) has performed its operations in the "TUBITAK Gebze Campus" in the City of Kocaeli. The Center aims to become a world leader in science and technology production with its research, development and innovation capabilities widely shared by its Energy Technologies, Climate Change and Sustainability, Materials Technologies and Life Sciences. TÜBİTAK MAM is one of the leading organizations in the advanced technology world thanks to its ability and capacity of research, research infrastructure and world-class administrative and operational process management.

[2] https://www.ibg.edu.tr/
[3] https://mam.tubitak.gov.tr/

With its customer-oriented approach, it offers original solutions to public, private and military agencies and institutions. These solutions are materialized through basic research, applied research and development, technology transfer, innovation, system and facility construction, national standard and norm-setting, professional consulting and training activities.

TUBITAK-MAM will provide access to several laboratories under the Life Science unit focusing on the development of diagnostic and therapeutic systems for cancer. The life science unit will be in a newly constructed building with many facilities including an animal house, BSL-2 and BSL3 laboratories, GMP facility, flow cytometry and FACS, imaging and microscopy, peptide synthesizer, NGS, LC-MS/MS, NMR, hybridoma technology, and antibody engineering. The laboratories are well-equipped with standard molecular and cellular biology tools.

1.3.4 Koc University Research Center for Translational Medicine (KUTTAM)[4]

Koc University Research Center for Translational Medicine (KUTTAM) was established in 2017 as the first research centre in Türkiye focusing on translational medicine at Koc University, Istanbul. KUTTAM provides a platform for interdisciplinary research for internationally renowned academicians across both basic and applied sciences, working in medicine, science, engineering and the social sciences. KUTTAM offers an outstanding research organization with a clear focus on progressing basic scientific discoveries to solutions that can improve the care and treatment of patients. KUTTAM also brings researchers into closer contact with pharmaceutical and biotechnology industries to allow strong industry-academia collaborations to progress new therapies to the marketplace.

KUTTAM will provide access to its research facilities including BSL1-3 cell culture labs, and lab infrastructure on Molecular Medicine, Cellular and Molecular Imaging, Omics, Motion Analysis and Cognition, Biostatistics, Bioinformatics and Data Management, Nano -Scale Technology and Prototype, Biomechanics and Endurance, Small Rodent and Zebrafish Animal Research Facilities. KUTTAM. Members also have privileged access to the equipment and facilities of Koç University Drug Research Center (IAM), Artificial Intelligence Center (AIS) and Koç University Hospital Clinical Trial Units (CTU).

1.4 Supervision

Programme: A well-structured and complete career guidance and training programme has been designed including meaningful participation of academic & non-academic sectors to provide the fellows with the necessary tools to boost their scientific excellence, and independent thinking and to increase their chances of employability and success during their future research careers.

Central Management Office (CMO): The Central Management Office established at SUNUM will ensure that all applicants and their choices of research areas and supervisors are matched at the pre-registration phase for each open call ensuring clarity and transparency. CMO will also monitor that fellows recruited at SUNUM are properly supervised, and that the duties of supervisor, co-director and mentor are fulfilled.

[4] https://kuttam.ku.edu.tr/

Programme Management Office (PMO): The Programme Management Offices established in each implementing partner organisation namely, IBG, TUBITAK-MAM and KUTTAM will ensure that all fellows recruited in their premises are properly supervised, and all the duties of supervisor, co-director and mentor are fulfilled.

Personalised Career Development Plan (PCDP)[5]: Each fellow, with the support of their supervisor, will be responsible for preparing a document summarising both the objectives of the research project to be undertaken and a list of all the activities that the fellow will be involved in during the duration of the project. This PCDP must include short and long-term objectives (including expected results), new skills and competencies to be acquired during the fellowship, and any expected activities as part of the training programme (research, communication, networking, dissemination, supervision and mentoring, etc.).

The PCDP must be prepared and submitted within one month after the fellow's contract starts, and updated version annually, for each year of the fellowship. Each fellow participating in the programme will receive a personalised career guidance & training programme which will allow him/her to learn an extensive array of concepts and techniques and broaden expertise, skills and competencies.

The full list of all possible supervisors and their research topics are given in Section 1.5.

[5] "Career Development" section in EURAXESS Portal: for researchers | EURAXESS (europa.eu)

1.5 Supervisor List

Supervisor Name	Host Organisation	Research Areas	Research Topics
Dr. Cavit Ağca	SUNUM	Drug Development	The research focus is on; Artificial transcription factors, gene therapy, protein delivery systems, liposomal drug delivery systems, non-human primate research
Assoc. Prof. Feray Bakan Mısırlıoğlu	SUNUM	Delivery Systems	The research focus is on the integration of stimuli-responsive materials enhance the controlled release of drugs in response to specific physiological conditions, such as pH, temperature, or enzymatic activity.
Prof. Gözde İnce	SUNUM	Delivery Systems, Testing and Validation Systems	Biosensors, wearable electronics, drug delivery systems
Prof. Ali Koşar	SUNUM	Delivery Systems, Targeting System Development, Testing and Validation Systems	The research focus is on: small scale phase change phenomena on functional surfaces and their applications in new generation microfluidic and organ on a chip devices, biomedical devices, diagnostic devices, drug delivery and energy.
Dr. Mina Namwari	SUNUM	Delivery Systems	Developing multifunctional MXene-based composites

Prof. Mustafa Çulha	SUNUM	Targeting System Development, Delivery Systems	Development of therapeutic nanostructures for cancer treatment and nanocarriers and nanostructures employing DNA nanotechnology and boron nitrides-based nanomaterials for cancer drugs transport.
Dr. Nur Mustafaoğlu	SUNUM	Delivery Systems, Targeting System Development, Testing and Validation Systems	bioengineering, tissue engineering, blood-brain barrier, cancer metastasis, stem cell technologies, organ chip technologies
Assoc. Prof. Özlem Kutlu	SUNUM	Delivery Systems, Targeting System Development, Testing and Validation Systems	My research interest is molecular regulation of genetic diseases. She focuses on Human Rare (Gaucher, Ichthyosis, Niemann-Pick etc.) and common Genetic Disease (Alzheimer, Parkinson etc.), Drug/Gene Delivery with Biodegradable Nanoparticles and Biomedical Application of novel Medical Devices.
Assoc. Prof. Rükan Genç Altürk	SUNUM	Drug Development, Delivery Systems, Targeting System Development,	Innovative design and synthesis of nanomaterials tailored to specific applications Bio/chemosensors development Drug delivery systems Self-healing materials Energy storage devices Eco-friendly synthesis of new materials Enhancing efficiency and functionality for bio applications

			Cutting-edge research in optical nanoparticles with focus on bioimaging and diagnostics
Assoc. Prof. Sibel Çetinel	SUNUM	Drug Development, Delivery Systems, Targeting System Development	Ocular drug delivery (anti-angiogenetic, anti-microbial), Tissue engineering (cornea, bone) Biomarker detection (discovery of therapeutic peptide/protein/Ab agents) Cancer diagnostics (biosensing applications)
Dr. Bilgi Güngör	IBG	Drug Development	At our lab, we aim to unravel the complexities of immune responses and develop novel immune-based strategies to target a wide range of diseases including infectious diseases. We investigate both innate and adaptive immune responses and uncover the potential of various immunomodulatory agents in vivo to stimulate or suppress the immune response depending on the context. Specifically, our focus is the role of tissue-resident memory T cells in vaccine-induced immunity. We explore different adjuvant formulations and delivery strategies to optimize vaccine immunogenicity and ensure tissue-specific long-term protection.
Dr. Gerhard Wingender	IBG	Drug Development	The research lab investigates the role of innate-like T cells, mainly iNKT cells, MAIT cells, and γδ T cells, in lung and intestinal diseases. Innate-like T cells develop as fully functional memory cells and display strong effector functions, like cytokine production and cytotoxicity, within hours of activation. This makes innate-like T cells important players in the immune surveillance to eliminate

			tumour cells and a promising tool for anti-tumour immunotherapies. Ongoing projects focus on gastrointestinal cancers (nationally funded), haemopoietic cancers (as part of an MSCA-SE consortium), and melanoma (Horizon Europe application under review). Experimental samples, derived from patients and mouse models, are analysed via various advanced immunological techniques and NGS approaches. To support the in-silico team, the lab invites bioinformatic post-doctoral fellow with expertise in NGS analysis, demonstrate a strong desire to contribute to the understanding of the immune system.
Dr. Gülçin Çakan Akdoğan	IBG	Testing and Validation Systems, Delivery Systems	Dr. Cakan Akdogan is a principle investigator at the Izmir Biomedicine and Genome Center, leading the Zebrafish Models Lab. She graduated from Bilkent University Molecular Biology and Genetics undergraduate program. Afterwards she obtained her PhD from European Molecular Biology Laboratory and Heidelberg University in 2009. During her postdoctoral studies at DKFZ, Heidelberg she worked on signaling in cell metabolism and Cancer using the Drosophila (fruit fly) model. Dr. Cakan- Akdogan is also the director of the zebrafish vivarium unit at IBG.
Assoc. Prof. Hani Alotaibi	IBG	Drug Development	Understanding the genetic and molecular mechanisms of tumorigenesis, with a focus on dissecting the transcriptional networks controlling the mesenchymal to epithelial transition. We are utilizing an integrated approach combining transcriptomics and epigenetics. Our state-of-the-art methods include high throughput expression profiling, high throughput chromatin state analyses (MeDIPseq, ChIPseq, Cut&Run, and ATACseq), gene silencing,

			and validation by protein-protein and protein-DNA interaction techniques.
Prof. İhsan Gürsel	IBG	Delivery Systems, Targeting System Development	At ThorLab, Prof. İhsan Gürsel's research focuses on the development of advanced delivery and targeting systems for therapeutic and preventive vaccine applications. His work develops nano-based non-viral delivery therapies. These controlled release delivery systems are applied in vivo to address therapies for infectious agents, cancer, and autoimmune or autoinflammatory conditions. Additionally, his research targets the creation of biodegradable, multifunctional nanodelivery systems for vaccines, combining innovation in biomaterials with cutting-edge therapeutic strategies.
Assoc. Prof. Kasım Diril	IBG	Delivery Systems	Hepatocellular carcinoma manifests high genetic heterogeneity between patients as well as cancer cells isolated from the same tumour. Our lab aims to develop an in vivo personalized medicine platform, very much similar to “avatar mice”, for testing drugs and modelling disease using tumours derived from patients. We have recently developed an FRG (FAH, Rag2, Il2rg) triple knockout mouse line in our lab. These mice allow efficient humanization of their livers by human hepatocytes, and they will be utilized for implantation and homing of patient tumours into the liver. Additional genetic modifications as well as allele combinations will be explored to allow efficient humanization of the liver and immune system, with the final aim of populating the mouse liver with patient derived tumour cells..

Prof. Mehmet İnan	IBG	Drug Development	Recombinant protein production in bacterial, yeast and mammalian cells, vaccine development, recombinant antibody production and scale-up, Devalopmnet of Pichia pastoris
Prof. Neşe Atabey	IBG	Drug Development, Testing and Validation Systems	Druggable target discovery and drug testing on customized 3D cell co-culture platforms: The lab is primarily focused on the in vitro and in vivo functions of growth factors signalling in the development, progression, and therapy response in gastrointestinal cancers. The recent studies have concentrated on how RTKs crosstalk with each other in HCC and CRC and what is the role of non-coding RNAs to coordinate the complex processes in cancer metastasis. The research team made significant contributions to understanding the mechanisms that regulate aggressive phenotype, drug resistance, and stem cell maintenance in HCC and has defined novel regulatory roles of long non-coding RNAs and micro RNAs in the regulation of c-Met signalling in liver cancer. Recently the research team developed 3D metastasis models, such as a Lab on a chip system, a 3D multi-cellular cell culture system that mimics NAFLD, to predict the aggressiveness and organ-specific metastasis ability of tumour cells. Furthermore, the team showed that these multicellular 3D systems are very powerful tools to discovery of druggable targets and testing antimetastatic drugs.
Assoc. Prof. Serhat Tozburun	IBG	Targeting System Development	Endoscopy technologies, OCT, swept-source OCT, holographic microscopy, AI based image analysis
Prof. Şerif Şentürk	IBG	Targeting System Development	Functional Cancer Genomics lab employs focused or genome wide CRISPR screens to identify druggable vulnerabilities across

			multiple cancer types, including mesothelioma, bladder cancer, and lung cancer. The research extends to exploring drug resistance mechanisms in lung cancer. Additionally, comprehensive tumor organoid studies are conducted, with a specific focus on malignant pleural mesothelioma. The projects encompass drug development investigations, facilitated by innovative delivery systems designed to target identified hits either through genetic perturbation or pharmacological inhibition. This multifaceted approach aims to uncover novel therapeutic targets and enhance our understanding of cancer biology, ultimately contributing to advancements in cancer treatment strategies.
Prof. Şermin Genç	IBG	Delivery Systems	Glioblastomas are the most common and lethal primary brain tumours. In the microenvironment of glioblastoma (GBM), the bidirectional interaction between microglial and tumour cells is crucial not only for tumour growth but also for the activation of microglia-mediated protective and tumour-promoting mechanisms. Microglial and GBM cells communicate either through direct cell-to-cell contact or via soluble released factors. In addition to these soluble factors, extracellular vesicles (EVs) mediate interactions between microglial and GBM cells in the central nervous system (CNS). Our research is focused on the role of EVs in GBM pathogenesis and the biomarker potential of EV contents.
Assoc. Prof Sinan Güven	IBG	Delivery Systems, Targeting System Development, Testing and	Guven Lab at Izmir Biomedicine and Genome Center (IBG) focuses on organoid based models through harmonizing basic sciences with principles of bioengineering. Group’s goal is to generate innovative and effective therapeutic approaches towards tissue mimicries and disease models for medicine and

		Validation Systems	pharmaceutical sciences. We generate induced pluripotent stem cells derived organoids and assembloids to model and investigate bidirectional interaction of ophthalmic tissues and neuronal system. Microenvironment bioengineering through nanotechnology and mechanotransductional approaches advanced the functional outcomes of the systems. Lab's research activities include development of stem cell-based therapies, microphysiological systems and biomaterials utilizing organoids, tumoroids, immune cells and bioinformatic tools.
Prof. Uğur Özbek	IBG	Targeting System Development	In Özbek Lab, we focus on uncovering the detailed molecular mechanisms involved in drug resistance and prognosis of Neuroblastoma, the most common pediatric solid tumor. We carry out cutting-edge CRISPR-Cas9 technology to perform proximity ligation assays and BioID studies, enabling precise identification of protein-protein interactions and molecular networks. Additionally, our research includes the development of monoclonal antibody-based therapies as a targeted treatment approach. Furthermore, we are investigating deregulations in chromatin regulatory networks in cell models and clinical samples to unravel the molecular processes underlying disease progression and to identify novel therapeutic targets. To explore this, we perform integrated analyses of ChIP-seq, ATAC-seq, DNA methylation, alongside transcriptomic and proteomic approaches.
Asst. Prof. Ezgi Karaca	IBG	Drug Development	Ezgi Karaca is a computational structural biologist with expertise in integrative modeling and biomolecular dynamics. She earned her bachelor's (2006) and master's (2008) degrees in Chemical Engineering at Bogazici University, where her research under Prof.

			Turkan Haliloglu and Prof. Ruth Nussinov focused on the interaction network of the tumor suppressor protein p73, shedding light on its role in cell cycle arrest and apoptosis. Dr. Karaca completed her Ph.D. (2013) in Computational Structural Biology at Utrecht University in the lab of Prof. Alexandre Bonvin. Her doctoral research significantly advanced the development of HADDOCK, a globally utilized docking software, by improving its capabilities to model large and dynamic protein complexes. From 2013 to 2016, she pursued postdoctoral research at EMBL Heidelberg, working with Dr. Teresa Carlomagno and Dr. Orsolya Barabas. During this time, she developed M3, a computational tool for modeling protein-nucleic acid complexes using sparse experimental data, a milestone that earned her the prestigious Alexander von Humboldt Postdoctoral Fellowship. In 2017, Dr. Karaca returned to Türkiye, establishing her Computational Structural Biology Lab at the Izmir Biomedicine and Genome Center (IBG) and joining Dokuz Eylul University as an Assistant Professor. Her lab investigates interface dynamics and its influence on biomolecular recognition, which led to her receiving the EMBO Installation Grant in 2020. Dr. Karaca has actively contributed to the computational structural biology community, notably serving as an assessor during CASP14 and CASP15 (Critical Assessment of Structure Prediction), becoming the first scientist from Türkiye to hold this role.
Prof. Hülya Ayar Kayalı	IBG	Drug Development, Delivery Systems,	Therapeutic antibodies Innovative drug research Multi-targeted drug delivery systems Metabolic pathways

		Targeting System Development	Cancer cell surface targeting Exosome-based drug delivery systems Monoclonal antibody production Advanced antibody characterization methods
Dr. Seyit KALE	IBG	Drug Development	Kale lab studies chromatin dynamics in health and disease, as well as novel therapeutic strategies such as rational antibody and small bio-active ligand design. The lab uses high performance computing, molecular modeling, bioinformatics, and statistical physics to develop mechanistic understanding into disease etiologies, and how to alter such pathologies using small ligands and peptides.
Prof. Esra Erdal	IBG	Drug Development, Targeting System Development, Testing and Validation Systems	Dr. Esra Erdal's research primarily focuses on leveraging advanced organoid technologies to model liver diseases, gastrointestinal cancers, and other complex conditions. Her work includes: - Developing patient-derived organoid models for pancreatic and colorectal cancers to explore molecular mechanisms and design personalized therapeutic approaches. - Establishing in vitro models using CRISPR/Cas9 gene-editing technologies and iPSC-derived organoids to study cancer initiation and progression. - Investigating cancer stem cell plasticity, with an emphasis on understanding signaling pathways and tumor microenvironment interactions. - Using 3D organoid platforms for drug toxicity screening and modeling metabolic liver disorders, including lysosomal storage diseases.

			- Exploring epigenetic and transcriptomic dynamics to uncover novel regulatory mechanisms in hepatocellular carcinoma (HCC) and other malignancies. Dr. Erdal's innovative approaches aim to bridge the gap between basic research and clinical applications, advancing the fields of regenerative medicine, precision oncology, and drug discovery.
Dr. Sibel Kalyoncu	IBG	Drug Development	Antibody, antibody engineering, protein engineering, recombiant protein
Prof. Abdullah Karadağ	TUBITAK-MAM	Drug Development	Cancer - Osteotropic cancers including multiple myeloma, lung, breast, and prostate cancer) Tumor - Tumor microenvironment interactions Metastatic cascade Bone metastasis Exosomes SIBLING proteins Matrix metalloproteinases (MMPs) Integrins A disintegrin and metalloproteinases (ADAMs) Mesenchymal stem cells (MSCs) Integrative multiomics analysis and molecular profiling Development of screening, diagnostic, monitoring, and therapeutic systems CAR-T cell therapy Immune checkpoint inhibitors

Dr. Hasan Ümit Öztürk	TUBITAK-MAM	Drug Development	The research lab is focused on the development of new biotechnological molecules, biosimilars and theranostics, physicochemical characterization and molecular interaction analysis.
Assoc. Prof Hilal Yazıcı Malkoçoğlu	TUBITAK-MAM	Drug Development	Our research is at the intersection of engineering, biology, and nanotechnology while bringing new material functionalization approaches to design bio-enabled and bio-based materials (such as implant materials, stents) and biomolecular recognition based self-assembled approaches to design, synthesis, and fabrication of hybrid molecular systems. Recently, our lab focused on designing nanoscale drug delivery carriers, developing multifunctional nanomaterials that combine therapeutic and diagnostic capabilities for targeted cancer therapy, bioproduction of biological drugs (biosimilars, biotechnological drugs etc) and their *in vitro* cell culture models/characterization methods to test their efficiency.
Dr. Hivda Ülbeği Polat	TUBITAK-MAM	Drug Development	My workspaces include microbiology, bacterial characterization and taxonomy, antimicrobial activity tests, recombinant protein expression and purification vaccine studies, antigen-antibody relationship, antigenjuvant relationship, immunology, in vivo studies, biocompatibility and toxicity tests (ISO 10993 and OECD) involving animal disease, xenograft mice models, in vivo studies, and working with risk group 3 bacteria in a BSL-3 laboratory.
Assoc. Prof İlke Gürol	TUBITAK-MAM	Testing and Validation Systems	Chemical Sensors (SAW, IDT etc.) Biosensors (SAW, Electrochemical)

Dr. Müge Serhatlı	TUBITAK-MAM	Drug Development	The research laboratory is focused on to conducting research aimed at advancing biotechnological pharmaceuticals, which encompass the development and enhancement of crucial elements such as biosimilars, nanostructured carrier molecules, and photodynamic treatment agents. Within our Biosafety Level 2 facilities, we conduct studies to evaluate the in vitro bioactivities of therapeutics using both 2D and 3D structures on different cancer cell lines. This involves creating controlled environments that adhere to strict safety protocols while allowing us to investigate the effectiveness and functionalities of these treatments in simulated conditions. Simultaneously, our Biosafety Level 3 facilities examine the in vitro anti-viral activities of vaccines, drugs, or active substances against viruses. Operating under stringent safety measures, we rigorously assess the efficacy of these agents in combating viral threats, contributing to the ongoing efforts to develop effective interventions against various viral pathogens. The laboratory endeavors to significantly contribute to the advancement of biotechnological pharmaceuticals, ultimately aiming to enhance therapeutic approaches and combat viral infections.
Dr. Yüksel Çetin	TUBITAK-MAM	Targeting System Development, Testing and Validation Systems	Three-dimensional (3D) in vitro tumor models that replicate dynamic tumor microenvironments (TMEs) have gained significant interest in recent years as alternatives to conventional animal models for screening anti-cancer therapies, predicting treatment responses, and assessing toxicological profiles. One major challenge in advancing the use of 3D disease tissue models in preclinical research is the lack of standardized protocols for their biological and biochemical characterization. Lung cancer-on-chip models, for example, demonstrate the utility of these systems

			for studying tumor progression and evaluating therapeutic responses, underscoring the critical importance of accurately mimicking the TME to reflect in vivo conditions. These models also offer insights into the complex cellular interactions and communication pathways within the TME, particularly in the context of metastatic disease. Enhanced pathophysiological models could be developed by incorporating specific TME components involved in tumorigenesis, as well as cancer-associated immune cells. Perfused systems, when integrated with hydrogels or scaffolds, facilitate the growth of tumor cells in a 3D lung culture environment. In order to meet requirements for reproducibility, stability, and ease of transportation, scaffolds and hydrogels must exhibit long shelf-lives and robust standardization. Hydrogels with tunable mechanical properties can be incorporated into microfluidic devices to generate highly controlled platforms, while porous microcarriers coupled with bioreactors can be adapted for high-throughput applications. Recent innovations in 3D tumor modeling, such as organoids and organs-on-chips, combined with omics technologies (e.g., genomics, proteomics, metabolomics) and advanced imaging techniques, are poised to significantly enhance the role of 3D in vitro tumor models in preclinical research, setting new standards for investigative approaches.

Prof. Atilla Gürsoy	KUTTAM	Drug Development	Recent advances in AI, particularly in generative deep learning and large language models have revolutionized research across numerous scientific and technological fields. In the realm of cancer biology, AI/ML offers unprecedented opportunities for rapid advancements in understanding and treatment. Our group specializes in drug-target prediction and drug repurposing through computational and AI/ML methods. By leveraging extensive datasets of protein structures and protein-protein interactions, we identify signaling pathways disrupted by drugs or candidate molecules. AI enables large-scale predictions of how potential drug candidates bind to proteins and protein-protein interfaces, allowing us to navigate the vast landscape of protein interactions effectively. This capability facilitates the prediction of synergistic drug combinations, shedding light on both therapeutic benefits and potential toxic effects. Additionally, when integrated with large-scale mutational cancer omics data, AI models provide valuable insights for developing personalized treatment strategies tailored to individual patients. We welcome computational biologists to develop and apply novel AI/ML methods for cancer.
		Targeting System Development	
Prof. Devrim Gözüaçık	KUTTAM	Drug Development, Testing and Validation Systems	Autophagy and stress and death responses Autophagy and cancer biology Molecular mechanisms of cancer metastasis and dormancy Cancer drug resistance Cancer drug development Cancer diagnosis research

Prof. Funda Acar Yağcı	KUTTAM	Drug Development, Targeting System Development, Delivery Systems	- Colloidal particles, including quantum dots, carbon dots, magnetic and metallic nanoparticles - theranostics - phototherapy, radiotherapy, chemotherapy, combination therapy - targetted therapies - drug delivery - medical imaging - sensors
Prof. Hasan Bayram	KUTTAM	Testing and Validation Systems	Lung cancer is one of the most common types of cancer worldwide, and it is the deadliest type of cancer, causing the most deaths among all cancers. It is grouped as small-cell and non-small cell lung cancer. The prevalence of non-small cell lung cancer has increased in recent years. Cigarette smok and air pollution are the main causes of lung cancer. Organoids are three-dimensional tissue structures that can mimic the properties of human organ systems. They have been used as a model for drug development and disease pathogenesis including lung cancer. Our laboratory has been using lung cell cultures including two-dimensional cell cultures and airway organoids from health subjects, as well as from patients with chronic airway diseases such as asthma and chronic obstructive pulmonary diseases. We have a close collaboration with clinical departments including Thoracic Surgery, which provides us lung explants from patients they operate. Therefore, we have a good access to patients' tissue and cell samples. We have been investigating impact of cigarette smoke and air pollutants (particulate matter) on these cell and organoid cultures. Within the scope of this project, the postdoc researcher, who will join our laboratory will work on the development of EGFR mutant, P53

			mutant and KRAS mutant primary bronchial epithelial cell cultures and bronchial organoids for targeted cancer therapies. In addition, he/he will be able to investigate the positive and adverse effects of newly developed cancer drugs/drug candidate molecules and targeted drug carrier systems on 2D primary cell cultures, as well as 3D organoids to be obtained healthy lung explants and cancer tissues from diseased lungs.
Prof. Kemal Baysal	KUTTAM	Testing and Validation Systems	The research interest is in vascular biology
Prof. Özlem Keskin Özkaya	KUTTAM	Drug Development	Our research focuses on systems biology in the broad field of computational biology. Biology is increasingly becoming data-driven and computational approaches reach all aspects of medicine – from understanding the disease to developing therapies. We are mostly interested in protein-protein interactions and we develop computational methods (such as using machine learning, or molecular docking,…) to predict protein interactions at genome scale. Protein-protein interactions are at the center of inter- and intra-cell communication and signaling. Many diseases such as cancer involve malfunctioning proteins which result in erroneous signaling. We focus on precision medicine, more specifically how proteins interact and how genomic variations and mutations rewires signaling and it relates to diseases, particularly cancer.

			We do: Develop computational methods and approaches for large scale structural modeling of protein-protein interactions Develop methods to find critical residues (energy hotspots) at the protein-protein interfaces Integrate 3D structural data of protein-protein complexes in signaling pathways that play important roles in cancer and other diseases We use our protein–protein interactions prediction tool (PRISM) which is able to carry out accurate predictions on the proteome scale to construct the structural networks of signaling pathways Provide maintain databases and computational services of the methods developed in the group to the community.
Assoc. Prof. Safacan Kölemen	KUTTAM	Drug Development	Our research primarily lies at the interface of organic synthesis, chemical biology, and medicine. We mainly use synthetic organic chemistry tools to design functional compounds, which are applicable in different biological fields including cancer therapy, antimicrobial applications, bio-imaging and theranostics (therapy + diagnosis). In this direction, we start with organic synthesis, then test our molecules in solutions and finally check their performance in cell cultures and animal models. Our main goal is to develop new therapeutic and diagnostic (imaging) approaches that do not share the chronic limitations of the current state-of-the-art techniques. Additionally, we try to understand the biological processes in detail and discover new biomarkers and/or signalling pathways for different pathogenic states by utilizing our own tools.

Assoc. Prof. Seda Kızılel	KUTTAM	Targeting System Development, Delivery Systems	Our research project involves synthesis of different types of biomaterials, functionalisation of these biomaterials and regulating immune and T cell behaviour
Prof. Tamer Önder	KUTTAM	Testing and Validation Systems	The research focus is on stem cell technologies, disease modelling, personalized medicine. The lab uses reprogramming of adult cells into induced pluripotent stem cells (iPSCs) to generate patient-specific disease models. These models faithfully recapitulate the genetic and cellular characteristics of the disease, enabling us to investigate disease mechanisms, identify novel therapeutic targets, and test potential treatments in a controlled environment, ultimately guiding personalized medicine approaches. Furthermore, we take advantage of next-generation genome editing tools such as CRISPR/Cas9 to generate specific mutations to create disease models and test gene therapy approaches. In parallel, we utilize focused genetic and chemical libraries to interrogate the function of epigenetic/chromatin factors in reprogramming and differentiation using human cell models. Through a combination of functional genomics and genome-wide we aim to identify how epigenetic modifications impact generation of pluripotent stem cells. For more information about ongoing projects and related publications, please see: https://scl.ku.edu.tr
Prof. Tuğba Bağcı Önder	KUTTAM	Drug Development	The research focus is on cancer epigenetics, epi-drugs, epigenetic regulation of therapy response in cancers

1.6 Secondment Opportunities

The mobility aspect is a key issue in the programme, and therefore exchange visits are planned for all recruited fellows throughout the project at partner laboratories and non-academic premises for intersectoral & interdisciplinary transfer of knowledge. These secondments will last between 3 and 6 months with a minimum of one secondment per fellow during their contract. Fellows will be asked to identify, in the research proposal, the partner organisation where the secondment will take place (regional/national/international) and an approximate length for the secondment as well as the reasons why the particular organisation is chosen, and the new or improved skills that the ER fellow is expected to develop/enhance during the stay. The list of partner organisations already providing a Letter of Commitment to the programme is given in Annex-I.

This mobility will favour and enhance the research and training aspects of the programme, strengthening the scope and impact of the research proposals. The secondments will involve direct supervision and training by the hosting partner organization, with the sending organisation and main supervisors in direct contact to discuss and design these exchange visits in advance and during the duration of the secondment, concerning the requirements set up in the Personalised Career Development Plan (PCDP).

International and intersectoral secondments taking place in one of the organisations involved in the programme or any other institution of interest for the fellow will be favoured when possible. These are expected to contribute to the development of specific skills improving the outputs of the project and/or the Fellow's personal development furthering his/her career.

2 TIMELINE

The first call for applications to NanoBio4Can will open on the 15th of March 2024 and close on the 30th of May 2024. Please see below for the key stages of the NanoBio4Can programme. Please note that deadlines will be enforced strictly. Applications or endorsements received after the dates listed below will be deemed ineligible without exception.

Pre-Call Announcement	15 January 2025
Pre-Registration	1-28 February 2025
Supervisor Confirmation	3 - 17 March 2025
Call Opening	1 April 2025
Deadline for Applications	30 June 2025
Eligibility Check	1 - 14 July 2025
Redress Procedure-1	15 - 31 July 2025
External Scientific Evaluations	1 August - 15 October 2025
Redress Procedure-2	15 - 25 October 2025

Announcement of Shortlisted Candidates	27 October 2025
Interviews	3 - 21 November 2025
Announcement of Final List	15 December 2025
Redress Procedure-3	15-25 December 2025
Recruitment & Signing of Contracts	1 January 2026
Start of NanoBio4Can Programme	1 April 2026

3 ELIGIBILITY CRITERIA

The NanoBio4Can programme is open to applicants of all ages, nationalities, and genders subject to the relevant eligibility criteria being met.

To be eligible to apply for a NanoBio4Can fellowship, the applicant:

a) must be fluent in English both written and spoken,
b) must be in a position to engage full-time in fellowship-related activities should they be funded.
c) must be **Experienced Researchers:** All applicants must have a PhD, at the time of the call deadline. Researchers who have successfully defended their doctoral thesis but who have not yet formally been awarded the doctoral degree will also be considered postdoctoral researchers and will be considered eligible to apply. A confirmation document must be signed by candidates stating that they comply with mobility and experience prerequisites.
d) must **comply with the MSCA mobility rule**: Applicants willing to apply to NanoBio4Can should not have resided or carried out their main activity (work, studies, etc.) in Türkiye for more than 12 months in the last three years immediately before the call deadline.

PLEASE NOTE:
Non-Turkish applicants must upload a certified copy of documents such as tax certificates, rent contracts and utility bills, as proof of residence, proving that the application is consistent with the respective mobility rule. Documents should cover at least 3 years for the standard mobility rule and must include full name and address.
Turkish citizen applicants must upload a certified copy of the border entry & exit records, which can be obtained through e-devlet application[6].

Researchers currently working at Turkish academic or non-academic institutions are not allowed to apply to this program.

[6] https://giris.turkiye.gov.tr/Giris/

4 APPLICATION PROCEDURE

4.1 Step 1: Identify a Suitable Research Area and Topic

Applicants are expected to design and propose an original research project that emphasises their contribution and development as a researcher under 4 main research areas;

a) Drug Development
b) Targeting System Development
c) Delivery Systems
d) Testing and Validation Systems

The list of Supervisors and research topics are provided in Section1.5.

4.2 Step 2: Pre-registration through NanoBio4Can Website

Applicants are expected to contact the **Central Management Office** and complete **the online pre-registration form on the website**[7] as soon as they decide to apply for a NanoBio4Can fellowship before identifying a suitable academic supervisor.

Through the online form, applicants must indicate their options for their preferred research areas and supervisors from the scroll-down menu and choose up to three supervisors from the provided list with whom they would prefer to collaborate. Applicants should also upload their CVs and motivation letters at the pre-registration stage.

The Central Management Office will conduct a prior eligibility check regarding the mobility and ER rules and initiate the matching between fellows and their choices of supervisors. The **CMO** will submit their verification decision for each applicant in relation to the supervisor selection once it has been submitted. At this stage, each applicant will be assigned an ID NUMBER.

4.3 Step 3: Confirm your main supervisor

Before creating an application, applicants should confirm with the CMO about the supervisor selection. All applicants should have a main supervisor confirmed at the pre-registration stage before beginning to prepare an application.

Subsequent to confirmation of both sides, applicants should immediately contact, and discuss their fellowship application with their selected main supervisor in the host organisation, with support from the Programme Management Office in the respective Host organisation.

[7] www.nanobio4can.net

Applications **must not** name a supervisor on an application without their consent.

4.4 Confirm your potential secondment organisation

As part of the NanoBio4Can fellowship, fellows are strongly encouraged international, cross-sectoral and interdisciplinarity mobility during the duration of their fellowships in the form of intersectoral and/or interdisciplinary secondments and short visits lasting between 3 and 6 months (within the fellowship's 24-month duration).

This secondment can take place at any point during the fellowship. Before drafting the application, the Fellow Candidates are advised to contact the potential secondment hosts with the guidance of the supervisor. If a secondment is not described at the proposal stage, it can be arranged at a later stage with the supervisor.

5 HOW TO APPLY

Applications must be submitted online, via the dedicated application portal, available on the NanoBio4Can website: http://www.nanobio4can.net/. The call will close automatically at midnight of the deadline. The deadlines will be strictly enforced.

The portal invites applicants to complete information and upload the template documents via a web form.

Templates downloadable via application portal:

Templates can be downloaded from the application portal using the links below, through the NanoBio4Can website. They are also available as an Annex of this document.

- Proposal Template
- CV
- Motivation Letter
- Letter of Intent from Host Organisation
- IP Ownership Protocol

Please note that the full list of documents must be submitted is provided in Section 5.2

5.1 Proposal Eligibility Criteria

- The proposal must be in **English**. Incomplete proposals will be rejected.
- An applicant may **only submit one application per call**; unsuccessful applicants from the 1st call are welcome to resubmit a proposal in the 2nd call.
- The proposal must be within one of the **4 research areas of the programme**.
- In their Project Proposal, each candidate should select only **1 Hosting group**.

- All ethical standards required by the European Union must be adhered to.
- A complete application must be submitted, including all required documentation before the established **deadline.**
- The files should be submitted in PDF format of a maximum of 2 MB each. **Only the last version of an application will be retained for evaluation.**
- Each document must be saved with the Application ID assigned to your name.

5.2 Application Documents

The application must be complete and contain all mandatory documents listed below:

a) **Proof of Academic Records:** Candidates must have a **certified PhD diploma or equivalent** in Molecular Biology, Genetics, Bioengineering, Biochemistry, Biotechnology, Pharmacology, Physics, Chemistry, Chemical Engineering, Biomedical Engineering, Computer Engineering, Computational Biology (or Bioinformatics), Materials Science, Polymer Science, Mathematics, Electrical and Electronics Engineering, or closely related fields. Degree certificates not originally issued in Turkish or English **must be officially translated** into either of these two languages by sworn translation and approved accordingly.

b) **Certificate of English Level:** Candidates must have a demonstrable level of **English.** A proof of upper-intermediate level **must be valid** and included in the application; in the form of one of the recognised international qualifications (minimum CEFR B2, Cambridge English First (FCE), PTE Level 3, IELTS 5-6.5 or TOEFL > 72). Copy or internet print of the exam results must be uploaded to the online application system. Applicants from native English-speaking countries can apply without proof of English level. An official degree (including postgraduate) completed in English as the only language will also be accepted as proof of Level.

c) **Application Form:** Candidates must prepare an individual **research proposal of a maximum of 10 pages** using the provided template. The proposal must demonstrate the quality & novelty of the selected research topic and must be aligned with the options of the fellowship programme. An ethics issues checklist and self-assessment following the standard Horizon Europe format are included as part of the proposal. If ethical issues are flagged, a more in-depth Ethics assessment may be asked by the responsible Committee during the evaluation process. *(template provided).*

d) **Curriculum Vitae (CV):** Must be in a given template (**max.5 pages)**: should include the applicant's background, awards, scholarships, meetings, publications etc. *(template provided).*

e) **Motivation letter:** Must be **max. 2 pages** and should include the applicant's choice of research topic and expression of interest in the NanoBio4Can programme *(template provided).*

f) **Letter of Intent from Host Institution**: The letter should specify the preference of topic(s), host organisation and supervisor from the available list. *(template provided).*

g) **Reference Letters:** Applicants should upload the reference letters **(at least 3)** in the

field provided, one must be from the thesis supervisor. For each letter, you will need to indicate the contact details of the persons signing the letter(s). Note that reference letters, if provided, will be evaluated during the interview phase.

h) **IP Ownership Protocol:** Applicant should include the IP Ownership protocol to determine and acknowledge the ownership of intellectual property rights on the intellectual products that will arise during or as a result of the execution of the research project which is submitted to NanoBio4Can programme and should be signed by the applicant and host organisation legal representative. *(template provided)*.

i) **A preliminary patent search report:** Applicant are asked to attach a preliminary patent search report prepared via free tools together will their research proposal to ensure the novelty of the research idea at the onset, so that prospects of patentability and high-quality publications are not jeopardised.

PLEASE NOTE: All documents must be in English. Applicants failing to submit all the requested documents will be considered ineligible. If you encounter any problems with the online portal, please contact info@nanobio4can.net

6 EVALUATION OF APPLICATION AND SELECTION PROCESS

6.1 Evaluation Criteria for the Programme

The different criteria for the evaluation and selection of the NanoBio4Can programme are given below with the scoring, thresholds, and priority (in the case of ex-aequo).

STEP	CRITERIA	SCORE (over 100)	TRESHOLD	PRIORITY (in case of ex-aequo)
ELIGIBILITY CHECK (STEP 1)	Application submitted before the deadline	In order to pass to Step 2, applicants must fulfil all these criteria		
	All necessary documents included			
	Mobility and ER rules fulfilled			
	Academic requirements for postdoctoral studies			
EVALUATION OF MERITS (STEP 2)	Education: graduate and postgraduate education (Masters, PhD).	10	20	2
	Research & working experience: participation in projects, publications, attendance to conferences and events, patents, research skills and competencies, and reference letters.	25		
	Others: mobility (research stays), supervision and mentoring, public awareness, English level, suitability of the profile to the programme, industrial experience.	5		

	Research proposal: quality and novelty of the research proposal, alignment with the hosting institution and PI's interest.	30	15	3
INTERVIEWS SHORT LISTED (STEP 3)	Research Skills: Scientific excellence, level of independence, motivation and potential as a future lead researcher, scientific quality of the presentation and answers during the QA session.	24	15	1
	Communication Skills: English skills & oral communication skills	3		
	Interpersonal Skills: Professional attitude, team player, reliability, motivation etc.	3		

A maximum score of 70 points should be obtained from the evaluation of merits, leading to shortlisted applicants passing through the interview stage. During the Interviews, additional aspects which may not have been so evident from the CV (creativity, level of independence, leadership skills, overall potential as researchers and self-identification of strengths and weaknesses) will be considered. The additional 30 points will be decided during the interview stage, constituting the final score and ranking over 100. The CMO will review the results of the experts' evaluation and put together the final ranking list.

6.2 Evaluation Criteria for Research Proposals

Scientific Evaluation Committee (SEC) members will be asked to evaluate all proposals based on the evaluation criteria and sub-criteria mentioned in Section 6.1. Weights will be applied to evaluation of research proposal is given below:

i. **Excellence (Weight 50%)**
- Quality and feasibility of the research/innovation project; level of novelty, inter/multidisciplinary and gender aspects.
- Quality and suitability-the two-way transfer of knowledge between the researcher and the host organisation
- Quality of the supervision and the integration in the team/institution
- Capacity of the researcher to reach or re-enforce a position of professional maturity.

ii. **Impact (Weight 30%)**
- Enhancing the potential and future career prospects of the researcher
- Quality of the proposed measures to exploit and disseminate the project results.
- Quality of the proposed measures to communicate the project activities to different target audiences.

iii. **Quality and efficiency of the implementation (Weight 20%)**
- Coherence and effectiveness of the work plan
- Appropriateness of the allocation of tasks and resources
- Appropriateness of the management structure and procedures, risk management
- Appropriateness of the institutional environment (infrastructure)

6.3 Selection Process

The selection process for the NanoBio4Can Programme will be carried out in four main phases:

6.3.1 Phase 1 (Eligibility Check)

The eligibility check against the mobility and ER rules will be carried out by the Central Management Office in parallel with the pre-registration process. All applications received before the deadline will be checked to ensure that the basic eligibility criteria listed in Section 3 and academic requirements are fulfilled by applicants. Applicants failing to submit all the requested documents /ineligible applicants and their mentors will receive an e-mail informing them of the ineligibility of the applicant/the proposal, detailing the reasons for ineligibility within two weeks after the deadline of the call.

Redress Process:
The candidates who have objections to the eligibility check may apply the redress procedure. A period of 10 days will be given for the redress including careful review by Project Management Office before making a final decision. A redress request can be made to info@nanobio4can.net

6.3.2 Phase 2 (Evaluation of Merits)

Once the eligibility of all applications has been checked, the eligible applications will be evaluated by the **Scientific Evaluation Committee** (SEC). In parallel with the remote peer review evaluation, all eligible proposals will be sent to the **Ethics Committee** (EC). The EC will evaluate which applicants/proposals need to provide an official approval letter from the ethical committee.

6.3.3 Phase 3 (Interviews)

The pre-selected candidates will be invited to take part in the remote interview process with the following structure:

- Part 1 (duration 10'): Introduction & oral presentation of the candidate merits and the research proposal, using any additional material (.ppt).
- Part 2 (duration 10'): Interactive Q&A session to get additional insights from the fellow (interest in the programme, level of independence, potential as a future leading researcher, self-identification of strengths and weaknesses, etc.).

All interviews will be in English and will seek to:

- Evaluate the candidate's academic and professional potential.
- Enlarge the information provided in the application, especially concerning the

candidate's project.

- Clarify issues not mentioned in the application and which are considered relevant for evaluating the candidate's suitability to carry out the proposed project.
- Evaluate the candidate's overall training, interests, concerns and curiosities for social, scientific, economic, cultural or artistic contexts, although not directly related to their experience.

Assess the candidate's personal and academic maturity, motivation for carrying out the fellowship and the project proposed and the ability to express themselves clearly and convincingly and defend the ideas expressed.

Redress Process:
The candidates who have objections to their ranking positions in Stage 2-3 may apply the redress procedure. A period of 10 days will be given for the redress including careful review by Central Management Office before making a final decision. A redress request can be made to info@nanobio4can.net

6.3.4 Phase 4 (Final scoring & Ranking)

The **Central Management Office** will rank proposals based on the evaluations from SEC, IP and the Consensus meeting. Applicants will be provided with an Evaluation Summary Report (ESR), which comprises full feedback from the selection committee and the (anonymous) comments.

Successful candidates (10-12 candidates) will be invited to become fellows of the NanoBio4Can Programme in the 1st Open Call. For the allocation of the fellowship positions, the order of priority of candidates for each institution established in the final scoring list received from the independent evaluators will be respected.

Redress Process:
The candidates who have objections to the evaluation process may apply the redress procedure within 10 days after the evaluation results are published. Requests for redress may be made to the **Central Management Office** concerning procedural issues and not concerning the scientific judgments of the experts. A redress request can be made to info@nanobio4can.net

7 EMPLOYMENT CONDITIONS

Each selected researcher for the Programme will be offered a 24-month fixed-term employment contract with a very attractive salary in one of the four recruiting research organisations according to the Turkish Employment Act (EA) No. 4857 of 2003 following the European Charter for Researchers [8]and Code of Conduct for the Recruitment of Researchers.

[8] https://euraxess.ec.europa.eu/jobs/charter

This law applies to all employees in Türkiye. All fellows will be covered by social security and be entitled to social benefits under the SGK scheme, under the same conditions as Turkish citizens. The legal arrangements concerning labour and social security in Türkiye are in line with the International Labour Organisation (ILO) and other generally accepted standards. Statutory working practices for NanoBio4Can fellows will be the same as for other staff from the host organisations working in similar positions.

All fellows will have access to laboratory and/or office space that is needed for the proper implementation and will have access to all infrastructure and equipment needed to carry out the project. All fellows have the right to attend conferences relevant to the advancement of their careers.

8 FINANCIAL ASPECTS

NanoBio4Can fellows will receive a gross salary that is on average higher than other researchers in similar positions would earn.

Living and Mobility Allowance: gross salary of €3.980/month for 24 months; covering Fellow's all expenses linked to their living and mobility (i.e. income tax, social security coverage including benefits for health care, occupational accident, unemployment and disablement benefits, paid parental and sick leave as well as relocation and travel expenses including secondment visits). Please note that all these expenses based on Turkish laws and regulations can reach up to 50% of the total gross salary.

In general Fellows' monthly net salary is calculated as below:
Net salary = Gross salary (€ 3980 * exchange rate of EUR/TR) – Total deductions (Social Security Premium Employee's Share (including Unemployment Insurance) + Income Tax + Stamp Tax+ Social Security Premium Employer's Allocation (including Unemployment Insurance).

According to Turkish income tax regulations (summarized below) a Fellow may be paid **approximately** a net salary of € 2,000 to € 2,250 per month.

Income Tax (Cumulative) (Wage Income) (2025)*	Rates
Up to € 4.300	%15
Up to € 9.000 and € 4.300 in excess	%20
Up to € 21.800 and € 9.000 in excess	%27
Up to € 117.600 and € 21.800 in excess	%35
Over € 117.600 in excess	%40

*Exchange rate taken as €1 = 36,54 TL

Travel allowance: An additional allowance of up to €1200 will be provided to support the initial travel expenses (ticket costs only) to Türkiye for the purpose of starting the project. This allowance will be reimbursed after recruitment, upon submission of the ticket declaration.

Special support: Additional support for those with disabilities will be ensured during fellowships.

Research, training & networking allowance: Fellows will be supported with up to €800 / month to cover the costs of any research material, consumables, scientific events attendance, and publication costs, participation in seminars and info days, and courses for the development of both scientific, research and transversal skills. This amount covers participation fees, travel and accommodation costs for attending the events selected according to the career plan defined subsequently between the supervisor and the researcher.

Working conditions and institutional administrative support: Working conditions for recruited fellows under NanoBio4Can will be similar to other Marie Skłodowska-Curie postdoctoral fellows and any other postdoctoral student under the hosting groups. Fellows will be provided with the same benefits and opportunities as other researchers in the lab, including work/lab space and access to equipment and facilities in-house.

In addition, fellows recruited under the programme will receive extra support from the **Programme Management Office**, and the different Units and Offices of the Host Institutions involved in the programme. SUNUM, TUBITAK-MAM, IBG and KUTTAM offer a full range of services and facilities, including information services, libraries, shops, restaurants and catering services, health services and support, language courses, physical activities and many more. Social security coverage for the contracted fellows includes benefits for health care, occupational accidents, unemployment and disablement benefits, and parental and sick leave.

9 RESPONSIBILITIES OF FELLOWS

Successful applicants must start their research within 3 months from the date on which they are notified about the fellowship.

Fellows are advised to maintain communication with the Central Management Office regarding the recruitment procedures and are instructed not to travel to Türkiye until they have obtained their working permit.

A “Fixed Term Employment Contract” with a **Non-Disclosure Agreement** and **Background IP Declaration Form** should be signed by the fellow and host institution. The documents will be later provided through the NanoBio4Can website.

Progress in the individual projects (scientific and career development issues) will be monitored through the Programme Management Tool (Smartsheet) and by monthly meetings between the fellow and his/her Mentor (s).
Every 6 months, the fellow must prepare **progress and financial technical reports**, to be approved by the supervisor, before sending the reports to the Core Management Committee. The CMC shall send the reports to scientific experts (usually the experts who evaluated the proposal in the evaluation and selection process). After approval of those reports, interim payments will be made. These reports will also form the basis for the continuation of the project.

The fellow must acknowledge TUBITAK and REA support through the NanoBio4Can program in any scientific publication produced as part of the project implementation.

As a minimum requirement, each fellow

- must deliver **two peer-reviewed publications** in international journals,
- must participate in **at least two national and two international events**,
- must engage in a minimum of **two public engagement events.**

The progress and final technical report template will be provided to fellows via the programme management tool.

10 ETHICAL ISSUES

NanoBio4Can will respect fundamental ethics principles, including those reflected in the Charter of Fundamental Rights of the European Union and the relevant ethics rules of Horizon Europe. The external independent Ethics Advisor of the NanoBio4Can program will review all the raised ethical issues during the application, evaluation and selection processes.

11 OPEN ACCESS

According to the Horizon Europe Open Science practices, all beneficiaries must deposit their peer-reviewed publications in a repository of their choice or in the depository of their host organisation to ensure Open Access. Fellows may also publish in the European Union Open Access portal Open AIRE.

12 INTELLECTUAL PROPERTY RIGHTS

The hosting organisations all have a strong awareness of IP rights, and each has their publicly shared “IP Policies” that are currently in effect. The Fellows will be provided with a copy of the "**Institutional IP Policy**" and will be asked to fill out **a “Non-Disclosure Agreement”** and a **“Background IP Declaration Form”** to clarify all Background IPs, before recruitment, and to prevent any misunderstandings.

The employment contracts signed by the host organization and fellow will be in alignment with the Host Institutions' IP Policies and clearly state the IP arrangements between the host organization and the fellow during the project and beyond.

In case of secondments, the Partnership Agreement will outline the IP arrangements. IPR and confidentiality issues will be managed following MSCA guidelines and national protocols, making best efforts to ensure that the researchers can benefit from the exploitation of their research results through legal protection.

13 DATA PROTECTION

Personal data of fellows submitted as part of the application for the NanoBio4Can Fellowship Program will be processed only for the present call and the possible signing of the employment contract with the host organisation.

During the application process, personal data submitted by the applicant will be processed by the **Central Management Office, Core Management Committee and Scientific Evaluation Committee.** All bodies will respect the privacy of the applicant and ensure that all personal data are processed under currently applicable laws and regulations, in particular, the General Data Protection Regulation of the EU and the national data protection laws of Türkiye.

14 RELEVANT LINKS

European Charter for Researchers:
https://euraxess.ec.europa.eu/jobs/charter/european-charter
Code of Conduct for the Recruitment of Researchers:
https://euraxess.ec.europa.eu/jobs/charter/code
EU Horizon Europe Ethics Self-Assessment Guide:
https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/how-to complete-your-ethics-self-assessment_en.pdf
European Union General Data Protection Regulation (GDPR):
https://gdpr.eu/tag/gdpr/
Turkish Personal Data Protection Law – Law Number 6698:
https://www.kvkk.gov.tr/Icerik/6649/Personal-Data-Protection-Law
Gender Equality in Research and Innovation:
https://research-and-innovation.ec.europa.eu/strategy/strategy-2020-2024/democracy-and-rights/gender-equality-research-and-innovation_en
COFUND - Marie Skłodowska-Curie Actions:
https://marie-sklodowska-curie-actions.ec.europa.eu/actions/cofund

15 CONTACT DETAILS

For any query regarding the NanoBio4Can programme please get in touch with us at info@nanobio4can.net

ANNEX-I: LIST OF ORGANISATIONS PROVIDED LETTER OF COMMITMENT FOR SECONDMENT

- Ilko Ilac San.Ve Tic. A.S.
- University Of South Florida
- Msb Medical School Berlin
- Democritus University of Thrace (DUTH)
- Polymer Institute Sas
- Egeteknopark A.Ş
- Biomedical Research Center of The Slovak Academy of Sciences
- Ataturk University
- Trustlife Ventures Lab Saglik Teknolojileri A.S.
- Organo ID
- Gen Era Diagnostik Saglik Hizmetleri A.S.
- Uniwersytet Im. Adama Mickiewicza W Poznaniu (AMU)
- Technische Universiteit Eindhoven (Tu/E)
- Fondazione Istituto Italiano Di Tecnologia
- ICGEB
- Atabay Kimya Sanayi Ve Ticaret A.S.

ANNEX-2: RESEARCH PROPOSAL TEMPLATE

NANOBIO4CAN

POST DOCTORAL FELLOWSHIP PROGRAMME

2nd OPEN CALL

PROPOSAL TEMPLATE
Version 2.0
14.01.2025

INSTRUCTIONS:

1. Page limit: Sections 1, 2 and 3 together **should not be longer than 10 pages**. All tables, figures, references, and any other element of these sections must be included as an integral part of these sections and are thus counted towards this page limit. Please remove the instructions in grey before submitting. Do not add a cover page or a table of contents.
2. The minimum font size allowed is **Arial 11 points**. Standard character spacing and a minimum of single-line spacing are to be used. This applies to the body text, including text in tables.
3. The page size is A4, and all margins (top, bottom, left, right) should be at least 15 mm.

DEFINITIONS	
Deliverable	A report providing information to ensure effective monitoring of the project. There are several types of deliverables (e.g., a report on specific activities or results, data management plans, ethics, or security requirements).
Impacts	Wider long-term effects on society (including the environment), the economy and science, enabled by the outcomes of R&I investments (long term). Impacts generally occur sometime after the end of the project. Example: *The deployment of the advanced forecasting system enables each airport to increase maximum passenger capacity by 15% and passenger average throughput by 10%, leading to a 28% reduction in infrastructure expansion costs.*
Milestone	Control points in the project that help to chart progress. Milestones may correspond to the achievement of a key result, allowing the next phase of the work to begin. They may also be needed at intermediary points so that, if problems have arisen, corrective measures can be taken. A milestone may be a critical decision point in the project where, for example, the consortium must decide which of several technologies to adopt for further development. The achievement of a milestone should be verifiable.
Critical Risks	A critical risk is a plausible event or issue that could have a high adverse impact on the ability of the project to achieve its objectives.
Objectives	The goals of the work performed within the project, in terms of its research and innovation content. This will be translated into the project's results. These may range from tackling specific research questions, demonstrating the feasibility of an innovation, sharing knowledge among stakeholders on specific issues. The nature of the objectives will depend on the type of action, and the scope of the topic.
Outcomes	The expected effects, over the medium term, of projects supported under a given topic. The results of a project should contribute to these outcomes, fostered in particular by the dissemination and exploitation measures. This may include the uptake, diffusion, deployment and/or use of project results by direct target groups. Outcomes generally occur during or shortly after the end of the project. Example: *9 European airports adopt the advanced forecasting system demonstrated during the project.*
Research output	Results generated by the action to which access can be given in the form of scientific publications, data or other engineered outcomes and processes such as software, algorithms, protocols, and electronic notebooks.
Results	What is generated during the project implementation? This may include, for example, know-how, innovative solutions, algorithms, proof of feasibility, new business models, policy recommendations, guidelines, prototypes, demonstrators, databases and datasets, trained researchers, new infrastructures, networks, etc. Most project results (inventions, scientific works, etc.) are 'Intellectual Property' which may if appropriate, be protected by formal Intellectual Property Rights. Example: *Successful large-scale demonstrator: trial with 3 airports of an advanced forecasting system for proactive airport passenger flow management.*

PART B

---------- Start of page count (max 10 pages) ----------

1. EXCELLENCE

1.1. Objectives *(~ 1 page)*

- Describe the topic and state of the art of your proposal (introduction, problem definition, challenge) and what you aim to achieve (objectives). Objectives should be measurable, verifiable, and realistically achievable.
- Describe how your project goes beyond the state of the art and the extent to which the proposed work is ambitious. Include bibliographical references as footnotes.

1.2. Concept and Methodology (~ 1-2 page)

- Describe and explain the overall methodology, including the concepts, models and assumptions that underpin your work. if possible, use a drawing, scheme, figure or graph to visualize the concept. Explain how this will enable you to deliver your project's objectives.
- Refer to the Technology Readiness Level at the start and end of the project if relevant.
- Refer to any important challenges you may have identified in the chosen methodology and how you intend to overcome them.
- Discuss the interdisciplinary aspects of the action (if relevant).
- Explain any important challenges you may have identified in the chosen methodology and how you intend to overcome them.
- Describe how the gender dimension and other diversity aspects are taken into account in the project's research and innovation content. If you do not consider such a gender dimension to be relevant to your project, please justify. For guidance on methods of sex/gender analysis and the issues to be taken into account, please refer to this page.
- Describe how appropriate open science practices are implemented as an integral part of the proposed methodology.
- Research data management and management of other research outputs: Applicants generating/collecting data and/or other research outputs (except for publications) during the project must explain how the data will be managed in line with the FAIR principles (Findable, Accessible, Interoperable, Reusable).

1.3. Quality and appropriateness of the researcher's professional experience, competencies and skills (~ 1/2 page)

- Discuss the quality and appropriateness of the researcher's existing professional experience in relation to the proposed research project.

1.4. Secondment Plan (if any) *(~ 1/2 page)*

- Describe the plan for the secondment, if any, and how it will benefit both your proposed research and your research career. Secondments are not mandatory but are highly recommended as a way to enhance the international, interdisciplinary and/or intersectoral aspects of the proposed research. If you do not plan a research stay, write "none". Discuss the interdisciplinary and/or intersectoral aspects of the research project (if relevant).

Note: Secondments may have a duration from 3 to 6 months. Secondments imply the Fellow's mobility to an Associated Partner Organisation with specific supervision arrangements.

2. IMPACT

2.1 Expected Impact *(~ 1 page)*

- Describe the career opportunities you may get through this fellowship and how the expertise and training skills gained will contribute to your career opportunities.
- Expected contribution of proposed skills development to the future career of the researcher.
- Describe the expected impact(s) of the project in relation to the project objectives. Please indicate the potential of the project results to solve economic/commercial/social/environmental problems. The impacts may be:
  - Scientific: e.g. contributing to specific scientific advances, across and within disciplines, creating new knowledge, reinforcing scientific equipment and instruments, computing systems (i.e. research infrastructures); instruments, computing systems (i.e. research infrastructures);
  - Economic/technological: e.g. bringing new products, services, and business processes to the market, increasing efficiency, decreasing costs, increasing profits, contributing to standards' setting, etc.
  - Societal: e.g. decreasing CO2 emissions, decreasing avoidable mortality, improving policies and decision-making, raising consumer awareness.
- Describe the innovation potential (e.g. ground-breaking objectives, novel concepts and approaches, new products, services or business and organizational models) which the proposal represents. Where relevant, refer to products and services already available on the market. Please refer to the results of any patent search carried out.
- Wherever possible, use quantified indicators and targets for the expected outputs, results and impacts (Product, Prototype, Patent, Utility model, Production license, Process Improvement, Variety registry, Spin-off/Start-up company, Audiovisual archive, Inventory / Database / Documentation Production, Work that can be copyrighted, social impact, environmental impact and other common effects).

2.2. Dissemination, exploitation and communication plan (~ 1 page)

- Provide a draft 'plan for the dissemination and exploitation of the project's results' (seminar organization, congress presentations, public sector-oriented conferences, business plan and others, etc.) Explain how the proposed measures will help to achieve the expected impact of the project.
- Strategy for the management of intellectual property, foreseen protection measures: if relevant, discuss the strategy for the management of intellectual property, foreseen protection measures, such as patents, design rights, copyright, trade secrets, etc., and how these would be used to support exploitation.

3. IMPLEMENTATION

3.1. Work Plan *(~ 2-3 page)*

- Describe shortly the work plan, broken down into work packages and tasks, including deliverables milestones (Table 3.1.a)
- Describe how the work plan includes secondments and/or short stays in partner organisations and any planned activities for the management of knowledge transfer. (if applicable)
- A Gantt chart should indicate the proposed Work Packages (WP), major deliverables, milestones, secondments and placements, if applicable (Table 3.1.b) The Gantt chart counts toward the 10-page limit.
- Identify the critical risks of research and/or administrative nature. Provide a short description of how to mitigate. (Table 3.1.c)

Table 3.1.a: Workpackage Descriptions

Work Package Number		
Work package title		
Start Month-End Months		
Objectives		
Description of Work/Tasks		
Deliverables D1.1. XXXXXXXX (Month X); D1.2. XXXXXXXX (Month X)		
Milestones M1.1. XXXXXXXX (Month X); M1.2. XXXXXXXX (Month X)		

COPY/PASTE for WP2, WP3, etc…

Table 3.1.b. A list of work packages* and description of each work package; responsible team members (project leader, researchers and scholar) with their roles

WP No	WP Name	MONTHS																						
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

*Work package (WP) means a major sub-division of the proposed project.
The main WP to be included in the project and the duration of each WP should be written in the work-time schedule. The literature review, preparation stages for progress and final report, dissemination activities, writing articles and purchasing of any material to be used during the project should not be shown as separate WP.

Table 3.1.c. Risk Management Table

Description of risk	WP(s) involved	Proposed risk-mitigation measures

The risks that can affect the success of the project negatively and the alternative plan(s) (Plan-B) that will be implemented in case of encountering those regarding the related work packages should be described. Implementation of Plan B should not lead to deviation from the main objectives of the project.

3.2. Complementarity and capacity of the identified research group at the host organisation *(1/2 page)*

- Describe shortly the complementarity of your proposal with the research activities of the supervisor at the host organisation and the resources required for the execution of the project.
- Explain the availability of infrastructure/equipment (laboratory, vehicle, infrastructure etc.) that will be used in the host institution/supervisor's laboratory.

---------- End of page count (max 10 pages) ----------

ANNEX-3: CV TEMPLATE

CV TEMPLATE

Delete these guidance notes before submitting your CV.

Document Structure:
The structure of this template is mandatory when preparing your CV.

The CV should contain the following information (detailed description below):
1. PERSONAL DATA
2. RESEARCH FIELD
3. EDUCATION / PROFESSIONAL EXPERIENCE
4. SCIENTIFIC PRODUCTION
5. FELLOWSHIPS, GRANTS, AWARDS AND HONOURS
6. TEACHING AND SUPERVISION ACTIVITIES
7. DISSEMINATION AND SCIENTIFIC COMMUNICATION ACTIVITIES
8. ADDITIONAL SKILLS AND TRAINING

Document length and page limits:
The maximum length of the CV is 5 pages. Any excess pages will not be taken into account.

Formatting conditions:
- The reference font for the body text is Times New Roman or Calibri.
- The minimum font size allowed is 11 points. Standard character spacing and a minimum of single-line spacing are to be used.
- The page size is A4, and all margins (top, bottom, left, right) should be at least 15 mm.

PLEASE NOTE:
- Always mention full dates (DD/MM/YYYY)
- Any research career gaps and/or unconventional paths should be clearly explained.
- Applicants who have successfully defended their doctoral thesis *before* the call deadline of **30/06/2025** but who have not yet formally been awarded the doctoral degree must indicate the **date of the successful PhD defence** ("viva"). Researchers having their last thesis defence *after* the call deadline will be automatically declared ineligible for this call.

It is the responsibility of the applicant to verify that the submitted PDF documents are readable and are within the page limit. PDF documents can contain colours.

1. PERSONAL DATA

NAME SURNAME:
EMAIL:
NATIONALITY(-IES):

2. RESEARCH FIELD

List the main areas of your research focus; you may add 1-2 sentences highlighting your profile and interests as relevant to the proposal topic, be brief and to the point.

3. EDUCATION / PROFESSIONAL EXPERIENCE

a) Education:

List your official education in chronological order (most recent first).
Use date format DD/MM/YYYY.

FROM – TO	DEGREE, FIELD	ORGANISATION
	PhD, field (as per diploma)	*Name of Faculty or Department, Institution, Country*
	Master, *field (as per diploma)*	
	Bachelor, *field (as per diploma)*	

b) Professional Experience:

List your research and other work experience in chronological order (most recent first).
Use date format DD/MM/YYYY.

FROM – TO	POSITION HELD	ORGANISATION
		Name of Department, Institution, Country

c) Career breaks (optional):

Explain if you have had any career breaks or unusual career paths. If you don't have any, write "none".

d) Language skills:

*Include your **relevant** language skills and information about official certificates (if any).*

LANGUAGE	WRITING (Native / Excellent / Good / Elemental)	SPEAKING (Native / Excellent / Good / Elemental)	READING (Native / Excellent / Good / Elemental)	CERTIFICATE AND YEAR

4. SCIENTIFIC PRODUCTION

a) Researcher ID / ORCID / Google Scholar / etc.

Include any researcher identification number. If you don't have any, write "none".

b) Summary

Fill in the summary information about your overall scientific production in the following table. If you don't have any, include "0". Do not modify the table.

PRODUCTION	**NR**
Total number of peer reviewed publications (JCR):	
Number of peer reviewed publications as first, corresponding or last author:	
Nr of book chapters:	
Nr of clinical guidelines:	
Nr of patents:	
Nr of hard/software developed:	
H-index:	

c) Publications

*List **up to 10** most important publications (in chronological order, most recent first). Use Vancouver format. Include DOI, Impact Factor in the year of publication (JCR), and Area and Position (Decile/Quartile). Highlight your **surname** in **bold.***
You may also include submitted or approved publications.
You may also include book chapters, clinical guidelines, patents, policy documents or reports.
If you don't have any publications, write "none".
Example:
*1. Mathur A, **Chow CS,** Feig AL, Kenaga H, Moldenhauer JA, Muthunayake NS, Ouellett ML, Pence LE, Straub V. Exposure to multiple career pathways by biomedical doctoral students at a public research university. PLoS One. 2018 Jun 22;13(6):e0199720. doi: 10.1371/journal.pone.0199720. eCollection 2018. Impact Factor: 1.95; Area and position: Medicine (miscellaneous) Q1*

1.
2.
3.
4.
Etc.

d) Participation in research conferences

List your participation in national and international research conferences (oral or poster presentations, etc.) in chronological order, the most recent first. Underline the name of the presenting author.
If you don't have any, delete the table and write "none".

DATE (DD/MM/YYYY)	**NAME AND PLACE OF CONFERENCE**	**TITLE AND AUTHORS** (presenting author underlined)	**TYPE** (oral/poster etc.)

e) Participation in research projects

List your participation in research projects in chronological order, the most recent first.
If you don't have any, delete the table and write "none".

FROM – TO (YYYY-YYYY)	**TITLE OF THE PROJECT**	**NAME OF GRANT SCHEME,FUNDING PROVIDER**	**GRANT AMOUNT IN EUR**	**YOUR ROLE IN THE PROJECT**

f) Research stays and visits

List any national, international or inter-sectoral research stays and visits in chronological order, the most recent first.
If you don't have any, delete the table and write "none".

FROM – TO (MM/YYYY – MM/YYYY)	**HOST INSTITUTION**	**HOST GROUP AND PI/SUPERVISOR**	**TOPIC, AND RESULTING PUBLICATIONS** (If any)

g) Innovation activities

List any activities related to research innovation or technology transfer, including patents, creation of companies, hard/software development, etc.
If you don't have any, write "none".

5. FELLOWSHIPS, GRANTS, AWARDS AND HONOURS

a) Fellowships, Grants, Awards, Honours

*List any fellowships, project grants, awards or honours you have obtained **via competitive calls.***
List also any fellowship or grant applications that are pending.
Use chronological order, most recent first.
If you don't have any, delete the table and write "none".

FROM – TO (MM/YYYY – MM/YYYY)	**NAME OF THE FELLOWHIP/GRANT/AWARD/HONOUR**	**SHORT DESCRIPTION**	**STATUS** (ongoing/ finalised/pending)

b) Other professional activities

List any other relevant activities, such as chairing or organising events or meetings, professional memberships of scientific societies or technology platforms, reviewing for journals, evaluation and editorial activities, institutional responsibilities etc.
If you don't have any, write "none".

6. TEACHING AND SUPERVISION ACTIVITIES

Describe your experience in teaching, mentoring and supervision.

Number and level of supervised students (graduate/undergraduate), topics, Name of Faculty or Department, Institution, Country
Teaching position, topic, level, Name of Faculty or Department, Institution, Country
If you don't have any, write "none".

7. SCIENTIFIC COMMUNICATION ACTIVITIES

Describe your experience in scientific communication and/or public engagement activities.

8. ADDITIONAL SKILLS AND TRAINING (

List any research and transferable skills, incl. leadership training, data management, ethics and integrity, volunteering and community engagement, …)

ANNEX-4: MOTIVATION LETTER TEMPLATE

MOTIVATION LETTER
(max. 2 pages)

1. Please Outline your motivation for pursuing a postgraduate fellowship within the NanoBio4Can program.

2. Elaborate on your academic aspirations and research interests specific to NanoBio4Can. Discuss how your prior training and experiences have equipped you for meaningful contributions in this field.

3. Clearly state your preferred host organization, supervisor, and research line. Justify your choice and express your genuine interest in the selected options.

4. Articulate your future career goals and depict where you envision yourself in the next five years. Explain how the NanoBio4Can program aligns with and contributes to your broader career plans.

5. Please refer to keywords that would best describe your personality, interpersonal relationships, and extracurricular activities.

6. Include any additional information about yourself that is pertinent to your NanoBio4Can application, showcasing aspects that strengthen your candidacy.

ANNEX-5: IP OWNERSHIP PROTOCOL

INTELLECTUAL PROPERTY OWNERSHIP PROTOCOL

1. SUBJECT AND PURPOSE OF THE PROTOCOL

This protocol has been arranged to determine the ownership of intellectual property rights on the intellectual products that will arise during or as a result of the execution of the project proposal, which is submitted to the NanoBio4Can Postdoctoral Fellowship Programme.

2. PARTIES

This protocol has been signed between the [..... *Name of the Researcher*] in the project proposal titled [..... *Proposal title*] and the [..... *Name of the Host Organisation*], which is the institution/organization, [.....*Address of the Host Organisation*] where the project will be carried out.

3. DEFINITIONS

Intellectual Property (IP) Rights: Not limited to those listed here; Patents, utility models, industrial designs, integrated circuit topographies, new plant and animal species and their breeding methods, computer programs, algorithms and their source codes and all kinds of intellectual creations or know-how or trade secrets that may constitute the subject matter of Intellectual Property Rights that arise during or as a result of the execution of the project,

Project Team: The natural/legal person or team of natural/legal people determined in this protocol signed between the project team (Project Coordinator, Supervisor, other Researcher, Assistant Staff and Fellows) and the institution/organization where the project will be carried out, which will develop the **Intellectual Property (IP) Rights** during or as a result of the execution of the project. The team consists of the Project Coordinator, Supervisor, other researchers, scholars and support staff.

Project: The research proposal is supported following the NanoBio4Can criteria

Fellow: The applicant who has been awarded a fellowship following the NanoBio4Can criteria

4. LIABILITIES

Parties to this protocol agree that;

1.1. The Host Organisation will own any intellectual and industrial property rights on any products including but not limited to works, inventions, industrial design, integrated circuit topography and technical products or any know-how that occur during the realization of all projects carried out in the Host Organisation, including but not limited to products, projects, designs, utility models, inventions or works, and the Host Organisation holds the right to dispose on them.

The Host Organisation Intellectual Property Rights Directive, which will be designed in a complementary manner and may be amended from time to time, shall be applicable, save for the provisions in the relevant laws in all processes related to intellectual property rights such as sharing of intellectual property ownership commercialization rights within the scope of commercialization

of inventions and distribution of revenues to arise.

The Host Organisation will have the rights to use or commercialize of Intellectual Property (IP) Rights that will be generated during the realization of all projects carried out in the Host Organisation.

The Host Organisation has no responsibility to pay any compensation for the revenues generated by commercialization of any of these Intellectual Property (IP) Rights.

1.2. The Fellow is obligated to transfer to the Host Organisation all of his/her IP rights on any products, projects, designs, utility models, inventions or brands that fellow has created/will create in accordance with the Industrial Property Law No. 6769, within the scope of the service carried out under this Employment Contract and/or largely within the Host Organisation and by taking advantage of the facilities provided by Host Organisation and/or based on the Host Organisation's experience and works, free from permits, releases, moral and financial rights, contractual obligations and all other rights, and unlimited to duration, place, number and content.

1.3. When the Fellow invents an invention, the fellow is obliged to inform the Host Organisation in writing and immediately before any public disclosure. The Fellow is obligated to provide all technical information and documents related to this invention/new development to the Host Organisation. This technical information that needs to be provided by the fellow needs to be detailed enough for patent/utility model drafting.

1.4. The Host Organisation does not need to obtain approval from the Fellow or any other third person in any way and for any reason, during the exercise of the IP rights that it will take delivery from the Fellow. The Fellow so agrees and undertakes this. This article also shall be effective on the Fellow's legal and appointed heirs and relevant right holders on any product, project, design, utility model, invention or work. If necessary, the Fellow is responsible for informing third parties that will be considered in this.

1.5. Regarding his work produced using the Host Organisation's facilities, the Fellow at the Host Organisation hereby agrees, declares and undertakes to indicate the Host Organisation as the author's address in any scientific articles and book chapters which is published during the term of this Contract and after the termination of the Agreement for any reason. In addition to the Host Organisation address, another address may be indicated therein, if appropriate. The Host Organisation shall be included in any publications from the works produced by using the Host Organisation's facilities. Any scientific articles and book chapters must be submitted for publication only after the approval of the Host Organisation and any scientific articles and book chapters might be delayed or canceled by the Host Organization due to protection of IP rights.

1.6. If the employment relationship ends for any reason, the Fellow will fully return all documents, information and data delivered to him under the employment contract with the Host Organisation without changing, endamaging or diminishing it. The Host Organisation holds the ownership of any and all information, documents, data and secrets related to the work and workplace governed by this Employment Contract.

1.7. The Fellow shall agree, declare and undertake not to disclose any confidential Information acquired due to his job, project or any duties carried out during the term of the Employment Contract and after the termination of the Employment Contract for any reason in any way and to keep the confidential Information safely, not to share it with the third parties without the written permission of the Host Organisation; otherwise to indemnify any and all loss and damages that the Host Organisation will incur save for legal and punitive sanctions set out in the laws.

Confidential Information includes any business plans, product ideas, research reports, marketing concepts, financial information, designs, know-how, trade secrets, and presentations which are

relevant and/or owned by the Host Organisation including but not limited to professional secrets.

1.8. The Fellow agrees, declares, and undertakes in advance that the Host Organisation reserves rights and claims regarding any damage to be incurred in case of any breach by the Fellow, of this obligation stated in this article.

5. DISPUTE RESOLUTION

The parties hereby agree that they will endeavour to settle any disputes arising out of the implementation and interpretation of this protocol by mutual negotiations; in case of disputes that cannot be settled peacefully, the Courts and Enforcement Offices of Istanbul Anatolia Side shall be authorised to resolve them. The law applicable to this protocol shall be the "Turkish Law."

6. SIGNATURES

This Protocol may be executed in any number of copies each of which when executed and delivered is an original, but all the copies together constitute the same document. This Agreement has been prepared and signed in the English language.

READ AND ACKNOWLEDGED BY THE FELLOW

Date _____

Name of Fellow _____

Signature by Fellow _____

FOR AND ON BEHALF OF THE HOST ENTITY

Date _____

Name of authorized signatory _____

Title(s)/function _____

Signature by authorized signatory _____

ANNEX-6: LETTER OF INTENT FROM HOST ORGANISATION

Letterhead of the HOST ORGANISATION

NANOBIO4CAN

POSTDOCTORAL FELLOWSHIP PROGRAMME

Date:
Subject: Letter of Intent

We, the undersigned, [.....*Supervisor name*] employed by [..... *Name of Host Organisation*] as a researcher and […… *Name of Legal Representative of the Host Organisation*] on behalf of [……. *Name of Host Organisation*] hereby declare our support to [..... *Fellow's name*] who will be referred to as "FELLOW" hereinafter, for the application entitled [**.....***Title of Research Proposal*] for the HORIZON MSCA CO-FUND PROJECT: Nanobiotechnologies for Innovative Therapeutic Approaches for Cancer-NANOBIO4CAN.

If the proposal is approved for funding, [.....*Supervisor name*] will act as a supervisor for the research training activities and the Fellow will be hosted at [……..*Name of Host Organisation*] laboratories creating favourable conditions for training and providing necessary means for implementing the action, as well as ensuring compliance with other provisions of the Grant Agreement.

Sincerely,

Name of the Supervisor
Date
Signature

Name of the Legal Representative
Date
Signature