Search for a Spanish Partner for a Bilateral R&D Project

Organization	
Date of Request:	10 November 2026
Company name:	Institute of Graduate Studies and Research (IGSR) Alexandria University, Egypt
Contact person and title/ designation:	• Toka Ahmed Zaki Elhaddad, Assistant Lecturer • Prof. Dr. Amira M. Embaby, Professor in biotechnology • Dr. Alaa Elgaabari, Lecturer in Physiology
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SECTION 1: Entity launching the partner search **Please give brief, to-the-point explanations. Additional information may be attached.**	
Sector	Biotechnology; cellular agriculture (Cultured fats); food biomaterials.
Entity mission or core functions	Postgraduate education and applied interdisciplinary research, with academic-industrial collaboration and researcher training.
Date of establishment	1983 (Institute of Graduate Studies and Research).
Ownership (if public and traded, add stock exchange and ticker symbol)	Public institute within Alexandria University, Egypt. Not stock-exchange listed.
Total number of employees	Please note that institutional staffing figures are not available for inclusion in this form. We have provided the research team's expertise and the proposed roles of the three partners. Please let us know if any further information is essential to launch the partner search.
Number of employees in R&D	Please note that institutional staffing figures are not available for inclusion in this form. We have provided the research team's expertise and the proposed roles of the three partners. Please let us know if any further information is essential to launch the partner search.
Key products sold or services provided	Postgraduate teaching, scientific research, researcher training and collaborative technology development.
Entity core technical competences	Project team: primary-cell isolation and culture; myogenic and adipogenic differentiation; muscle-fat co-culture; microscopy and molecular characterization.
Key R&D programs and activities	The Institute comprises four departments: Biotechnology, Materials Science, Environmental Studies and Information Technology, and offers Master's and PhD programs. Within this multidisciplinary environment, our biotechnology team has conducted STDF-supported cultured-meat research and is undertaking doctoral research supported by the Academy of Scientific Research and Technology, extending established two-dimensional cultures to three-dimensional systems.

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Examples of accomplishments	The Institute of Graduate Studies and Research (IGSR) at Alexandria University stands out as a premier hub for interdisciplinary research, with its top faculty members.The institute actively addresses regional challenges through breakthroughs in biotechnology for waste recycling, solar energy technologies, and environmental risk management. It successfully bridges academia and industry through strong partnerships with the Alexandria Business Association and by offering advanced analytical testing through its Central Laboratories. Additionally, the institute drives digital transformation by delivering specialized training programs and innovative initiatives in artificial intelligence and data analytics.
Company strategic orientation	Develop reproducible food-biotechnology processes, train researchers and build sustained industry partnerships. Proposed academic lead: Dr. Amira Embaby.

SECTION 2: Spanish Company Profile Brief profile of the prospective partner and the collaboration sought.	
Profile of ideal technology partner	A Spain-based company with research and development capability in food-grade biomaterials, edible hydrogels or hydrocolloid formulations, interested in co-developing matrices for cultivated fat production.
Core technological competencies and expertise	Development of food-grade, cell-compatible scaffolds and matrices that support adipogenic differentiation and lipid accumulation in 3D culture. Candidate materials include gelatin, alginate, collagen or other edible hydrocolloids, formulated to maintain cell viability and provide suitable structural support for cultivated fat formation under the selected culture conditions.
Other essential qualifications (e.g.: ownership, track records etc.)	Ability to participate as the Spanish industrial partner under ESIP, undertake a defined research contribution and provide experimental matrix samples. Experience in cell culture or cultivated foods would be an advantage.
If you have a list of companies with whom you are in contact or interested in contacting, please provide contact details	Companies of interest include Juncà Gelatines, Spain (junca@gelatinesjunca.com; gelatinesjunca.com), and Viscofan, Spain (info@viscofan.com; viscofan.com). Additional companies of interest include **CEAMSA, Spain** (info@ceamsa.com), for alginate, carrageenan and food hydrocolloid formulations; **Industrias Roko, Spain** (export@rokoagar.com), for agar, konjac and other hydrocolloid-based texturizing systems; and **Hispanagar, Spain** (hispanagar@hispanagar.es), for food-grade agar and related biomaterials.
If you are interested in collaboration: please specify details and other important information you want to share with a potential company	Joint application under ESIP 2026, with a proposed 24-month development period. The academic team will undertake biological and product testing; Egrobots will develop the medium-optimization AI model. The Spanish partner will focus on matrix development and supply.
Interested areas of collaboration	Edible matrix formulation; compatibility with **cultured fats** and ingredient preparation; reproducible matrix supply; development of a new cultivated-food application.
Specific R&D contribution you are seeking/offering	Seeking: tailored edible matrices, formulation specifications, samples and manufacturing guidance. Offering: cell-culture experiments, biological feedback, fat-composition and functional testing, and AI-assisted medium optimization. The company would gain application data to support further development of its formulations.

Project summary and partner roles

Project title :

“AI-Guided Pilot Production of Crude Edible Fats from Cultured Cells to Mimic Natural Animal Fat for the Meat Industry”

In order to boost Egypt's meat-processing industry's local fat supply, the initiative intends to create an edible animal fat ingredient from cultivated cells. We will create repeatable demonstration batches and compare their lipid content, composition, and functional characteristics to those of natural animal fat by combining cell growth, food-grade matrices, and AI-guided medium adjustment. To minimize needless trials and the medium cost per gram of recoverable cellular lipid, Egrobots will employ machine learning to suggest medium formulations for experimental testing. Edible matrices appropriate for the chosen culture and method of ingredient preparation will be co-developed and supplied by the Spanish partner. At least three independently started demonstration batches will be subjected to the chosen circumstances before being compared to natural fat in analytical and small-scale food processing testing. Physical fat-ingredient samples, a recorded production process, measurable lipid yields and product-performance data, an optimization model that has been tested experimentally, and a budgeted plan for additional scale-up are the anticipated results. Throughout development, product quality and food input appropriateness will be evaluated. Egyptian research organization. Alexandria University's Institute of Graduate Studies and Research. Dr. Amira Embaby is the scientific lead. Cell sourcing, growing, medium creation, biological testing, batch production, and comparison with natural fat will all be overseen by the team. Egyptian business associate. For medium optimization, Egrobots will create a machine-learning decision-support model. It will suggest new formulations, link experimental results to lipid yield and medium cost, and assess the model prospectively with the academic team. Spanish business associate. The chosen business will co-create and provide edible matrices, record formulation standards, and offer guidance on repeatable production. To direct matrix enhancement, the Egyptian team will offer biological and functional tests. The partnership provides the business with a novel use for produced food that is backed by scientific data.

Signature: Toka Ahmed Elhaddad

Name:

Date:

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Date: 11/11/2026