

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

Organization	
Date of Request:	4/2/2025
Company name:	Agricultural Research Center, Plant Pathology Research Institute, EGYPT
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SECTION 1: Entity launching the partner search

(Please give brief / to the point explanations. For more explanation on any point below, you may add a short paragraph as an annexure, with this document.)

Sector	Agriculture
Entity mission or core functions	Agricultural Research Center, Plant Pathology Research Institute Vision: A high agricultural production that is free of microbial and/or chemical contaminants to ensure healthy and safe human food, animal feed and environment. Mission: Developing and manipulating all available technical resources, biotechnological tools, and instruments for accurate diagnosis of plant pathogens and controlling them. Strategy: Using and upgrading all the approaches, methods and techniques to control and manage the plant disease problems focusing on the safe alternatives and biological pesticides in addition to developing disease-resistant plants.
Date of establishment	1919
Ownership (if public and traded, add stock exchange and ticker symbol)	Government institution

Total number of employees	560 employees in the Plant Pathology Research Institute, including 230 administrative employees and 330 research staff, including head of researcher (professor), senior researcher (associate professor), researchers (assistance professor), PH. D students, and M. Sc. Students.
Number of employees in R&D	100 research staff
Key products sold or services provided	- Agricultural Research Center, Plant Pathology Research Institute, have many services provided related to molecular biology field, such as - Genetic diversity of important fungi by RAPD and ISSR-PCR isolated for many crops - Detection and identification of fungal and bacterial pathogens by PCR using specific primers - Detection and identification of fungal and bacterial pathogens by ITS primer and sequencer - Real-Time PCR for gene expression of fungal and bacterial pathogens
Entity core technical competences	Specialized researchers in different molecular biology methods such as PCR, RT-PCR, and Real Time PCR with good experience in using PCR methods in diagnostics plant pathogens
Key R&D programs and activities	1. Development of integrated pest management including biological control, agricultural practices, plant extracts, intercropping system and disease forecasting. 2. Development of new technologies in rapid detection and identification of plant pathogens (fungi, bacteria, viruses, and nematodes) and determination of the natural genetic resistance in strategic crops. 3- Promoting IPM/ICM approach to minimize pesticides use and expand the application of safer plant disease management measures. 4 - Development of research projects on plant disease, epidemiology, estimation of disease losses and disease forecasting.
Examples of accomplishments	Many services provided, such as detection and identification of plant pathogens by PCR

	method
Company strategic orientation	Agriculture is crucial for the national economy, providing essential crops like grain, vegetables, fruits, and animal husbandry. However, environmental, climate factors, and plant pathogens have led to crop failures and reduced yields. Approximately, \$220 billion is lost to the global economy each year as a result of plant diseases caused by these pathogens. The most effective way to manage plant diseases is to use healthy, disease-free plants. Controlling crop diseases is a global issue; over-reliance on pesticides can lead to environmental pollution and product safety issues. We need early warning technologies to identify and reduce disease losses accurately. Also, to ensure food security and minimize crop losses, continuous and immediate monitoring and pathogen identification efforts must be undertaken before planting crops in the field. Molecular biology technology has provided new strategy for plant pathogens detection, with PCR being the earliest gene amplification technology. PCR assays have high sensitivity and specificity but require access to high-quality nucleic acids for their accuracy and simplicity. This urgent need for early warning technologies is crucial for agricultural production.

SECTION 2: Spanish Company Profile

(Please provide a brief summary of the prospective partner company or organization. This summary may address some or all of the points below)

Profile of ideal technology partner	Molecular biology company, which custom DNA and RNA oligo synthesis, including primer/probe synthesis and labelling and production PCR master mix
Core technological competencies and expertise	I have in my lab good staff include many senior researcher (associate professor), researchers (assistance professor), PH. D students able to be learn new technology and applied in our lab with many skills such as, 1- DNA and RNA extraction, purification,

	and quantification via UV spectrophotometry. 2- : Standard PCR, RT-PCR, qPCR, and gel electrophoresis.
Other essential qualifications (e.g.: ownership, track records etc.)	
If you have a list of companies with whom you are in contact or interested in contacting, please provide contact details	
If you are interested in collaboration: please specify details and other important information you want to share with a potential company	
Interested areas of collaboration	Molecular biology company
Specific R&D contribution you are seeking/offering	- I seek a good company in molecular biology field can support my idea. - I have good staff of molecular biology lab.

Signature	
Name:	Dr. Mohamed A. Mahmoud
Date:	15/9/2026