

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

Organization	
Date of Request:	06/01/2025
Company name:	Sinai University
Contact person and title/ designation:	Dr. Hatem Mokhater and Dr. Norhan Salah
E-mail:	<a href="mailto:Hatem.mokhater@su.edu.eg">Hatem.mokhater@su.edu.eg</a> <a href="mailto:Norhan.salah@su.edu.eg">Norhan.salah@su.edu.eg</a>
Phone number:	0683336844
Mobile number:	+201111904077, +201005149636
Website:	<a href="https://www.su.edu.eg/">https://www.su.edu.eg/</a>

SECTION 1: Entity launching the partner search <i>(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.)</i>	
Sector	Pharmaceutical sector
Entity mission or core functions	Sinai University is committed to working on the development of the community by providing excellent educational services that produce highly qualified graduates, in their knowledge and skills, able to compete in the local, regional and international labor markets.
Date of establishment	2005
Ownership (if public and traded, add stock exchange and ticker symbol)	Private entity affiliated the Ministry of higher education and Scientific Research
Total number of employees	5000
Number of employees in R&D	3000
Key products sold or services provided	Education
Entity core technical competences	(1200) Emeritus Professor (620) Professor (700) Associate Professor (999) lecturer

	(520) Assistant lecturer (300) Teaching Assistant
Key R&D programs and activities	researches
Examples of accomplishments	researches
Company strategic orientation	Teaching and researches

## 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	
Core technological competencies and expertise	
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	We are seeking a company of Optimization of drug Loaded Hydrogel for Treating Ulcers Artificial intelligence for hydrogel based biopolymers in wound healing Gellan gum for wound healing load with drug based on natural origin Guar gum for wound healing load with drug
Specific R&D contribution you are seeking/offering	Providing expertise for improvement of biopolymer available in environment



- Providing lab facilities and wound healing technology transfer.
- Here is the proposed Abstract

**Title:**

**Drug Loaded hydrogels based on biopolymers for Treating Ulcers : Green Synthesis , Optimization and Artificial intelligence**

**Abstract:**

Hydrogels, a class of semi-solid materials characterized by mechanical properties that can be fine-tuned so promising materials for wound healing and in the field of ulcers treating .One kind of hydrogel, known as a self-healing hydrogel, can actually heal itself after damage has occurred, returning to its original shape and performance levels.

With the great development made in materials synthesis technology, biomaterials have formed the cornerstone for many emerging pharmaceutical and medical applications.

The biocompatibility and biodegradability of biopolymers and their derivatives derived from plant or animal biomass are consistently high. When contrasted with physical and chemical processes, green synthesis offers numerous benefits.

Artificial intelligence (AI) is the study of how computers can think, judge, and make decisions in the same way that people do. AI systems may be trained using large datasets to make predictions, categorize things, and perform a variety of complex tasks. AI is now being used to create and optimize hydrogels for medicinal applications. Big data created from experiments, simulations, and computational computations provides the potential for implementing data-driven approaches in material research. So the aim of this project scale up of wound healing

	hydrogel through Egyptian and Spanish companies and publish manuscripts, patents and technology transfer with partners.
--	---

Signature

Name: Dr. Hatem Mokhater  
Dr. Norhan Salah,

Date: 06/01/2025

*Dr. Hatem Mokhater.*  
*Dr. Norhan Salah.*