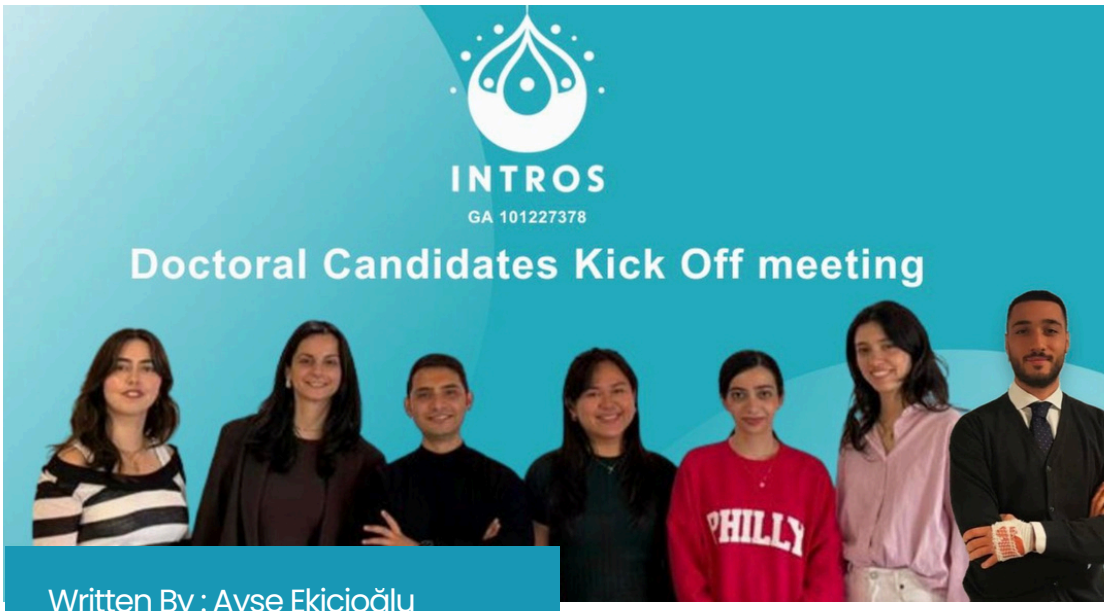
OCTOBER 2026 - ISSUE 1

www.intros-project.eu/

INTROS PROJECT

NEWSLETTER



Written By : Ayşe Ekicioğlu

Welcome to INTROS

INTROS is a European interdisciplinary research and training project developing innovative strategies to prevent, detect and manage infections in complex wounds. Funded through the Horizon Europe programme, INTROS brings together academic and industrial partners to advance smart wound dressings, biodegradable sensors and targeted therapies.

By combining research, innovation and doctoral training, the project aims to support faster healing, reduce complications and bring promising wound-care technologies closer to real-world application [10].

Read More on our website

In this newsletter you will find:

- Meet our doctoral candidates (DCs)
- Question of the Month
- Kick-off Meeting Recap
- Future Events

Why does it matter?

Chronic wounds, including diabetic ulcers, pressure sores and venous ulcers, can remain open for months, heal slowly and become infected. An estimated 13 million people suffer from chronic wounds annually [1]. One in three untreated chronic wounds leads to amputation [2], while global wound-care costs exceeded €300 billion in 2022 [3].

Beyond the numbers, patients face pain, disrupted daily life and anxiety about wounds reopening [4]. Healthcare systems experience longer hospital stays, repeat visits and increased staff pressure [4], while patients and families may lose income [4].

Normal wounds progress through healing stages; chronic wounds can become trapped in prolonged inflammation, delaying tissue repair and closure [5,6]. Current care still faces gaps in early infection detection [7], active dressings [8] and scalable manufacturing [9].

INTROS aims to bridge these gaps through biodegradable sensors for early infection detection, smart dressings with antimicrobial and regenerative functions, locally acting biomaterials, and preclinical testing to evaluate safety, efficacy and scalability. Its ambition is to move wound care from reactive treatment towards proactive, personalised healing [10].

Follow our research journey and developments through biannual newsletters.

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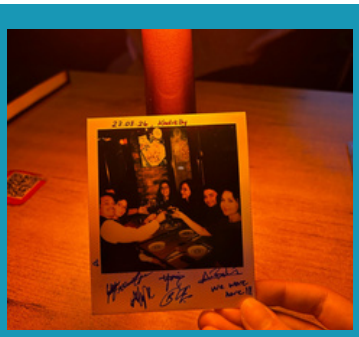
DC1 - MyBiotech GmbH



My name is Nima Mohammadi, and I am originally from Iran, where I completed my Bachelor's degree in Chemical Engineering. I then moved to Türkiye to pursue a Master's degree in Materials Science and Nanoengineering at Sabancı University. Now, I am at MyBiotech GmbH in Germany, pursuing a PhD in Medical Sciences at Charité - Universitätsmedizin Berlin as part of the INTROS project.

You can think of my PhD as developing tiny capsules filled with omega-3 oils that could potentially help heal surgical and burn wounds. These formulations are designed to support wound healing through the beneficial properties of their ingredients. But developing them is only part of the story. I will also test their performance on real human skin tissues donated by patients, using ex vivo wound models. This approach will allow me to study how the formulations behave in human tissue under controlled laboratory conditions, bringing the research closer to real-life clinical applications. One of the main challenges is developing formulations that are stable, effective, and suitable for use in such a complex environment.

I am glad to be in the INTROS project because it brought together two things I was looking for in my PhD, a research topic closely related to my Master's work, which I wanted to build on and specialize in, and the opportunity to pursue a career in industry. So INTROS was a great opportunity to combine my research interests with that goal.



One thing you left behind. One thing you brought with you. One thing you hope to find in your new life.

Every time I have started a new chapter in another country, I have left loved ones, people who made these places feel like home. But I keep them close through photos and memories I have brought with me. Now, I hope to meet new people, discover new places, and create new memories to look back on.



Making real-world impact

I'm excited to be in an environment where I can make a real-world impact. The INTROS MSCA project has already given me the feeling of working as an R&D scientist, taking ownership of my own project and developing products with potential clinical applications. I'm also experiencing firsthand how different it is to work in a company compared to a purely academic setting, and I look forward to building the skills and experience that will shape my future career.

Outside the lab, I enjoy making teas, cooking, and exploring different cuisines. I've learned that every place has its own culture, flavours, and stories. I enjoy discovering these differences and finding familiar comforts in new surroundings. So I enjoy living in Saarlouis, whose location near France and Luxembourg makes spontaneous day trips to neighbouring countries an exciting part of life here.

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Louise Martin in

DC2 – Universität des Saarlandes

I'm Louise, from the Universität des Saarlandes, Germany. I have a Bachelor's degree in Biochemistry from the University of the Philippines and a license as a registerd chemist. I did my Masters in Industrial Nanobiotechnologies for Pharmaceuticals from the University of Pavia, Italy, with a research focus on nanomedicine and their drug delivery applications.

As DC2, my PhD focuses on developing pH-responsive nanomaterials that can be embedded in a thin film that has anti-inflammatory and antimicrobial properties, with the goal of using it for wound coverage. At the moment, my experiments are focused on the synthesis and characterization of these nanoparticles, with goal of optimizing their size and stability. One of my main challenges so far is quantification of my materials and the use of two different polymers to form the nanoparticles. Since the project targets to use different materials and technologies, each step needs careful optimization and planning, before we move towards the final wound covering.

I am drawn to research that bridges fundamental science and real-world healthcare challenges. As someone who worked in drug discovery research before transitioning into pharmaceutical nanobiotechnology, I see INTROS as an opportunity to build on my existing knowledge while exploring new approaches to wound care. I am particularly excited by the project's interdisciplinary nature and its potential to improve healing outcomes.



Experimenting beyond science

I'm looking forward to building connections with fellow researchers and learning from people with different backgrounds and expertise. The secondments particularly excite me because they offer opportunities to explore related fields and develop transferable skills beyond my main research area. But what I'm most excited about is the program's industrial component, as I hope to pursue a career in the pharmaceutical industry after my PhD.

I guess I'm a scientist through and through, because I love experimenting even outside the lab! Whetherit's exploring a new country, discovering different cultures, trying unfamiliar food, or experimenting with recipes in the kitchen. The world is full of things to try and discover, so for sure, I'm always planing my next big adventure.



One thing you left behind. One thing you brought with you. One thing you hope to find in your new life.

I physically left behind my loved ones and community, but brought with me their constant support and encouragement. I hope to find the something similar with the people I meet in this journey.

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DC3 - Charité / Universitätsmedizin Berlin



Roza Tsoli

My name is Roza Tsoli, and I'm originally from Greece. My academic journey began with a BSc in Food Science and Technology at University of West Attica, followed by an MSc in Biomedical Sciences, specializing in Regenerative Medicine, at Maastricht University in the Netherlands. I'm now pursuing my PhD at Charité – Universitätsmedizin Berlin, where I focus on regenerative approaches to burn wound healing.

My PhD focuses on exploring how tiny particles called exosomes, released by stem cells from adipose tissue, could help heal burn wounds. These particles carry biological signals that may reduce inflammation, support tissue repair, and promote wound healing, offering a potential alternative to treatments based on whole cells. I'm currently working on establishing and optimizing the experimental procedures, including isolating stem cells and their exosomes and preparing for their characterization and testing in an ex vivo burn wound model. One of the main challenges is finding the right conditions to obtain consistent, high-quality exosomes. In the longer term, I also aim to explore how their production can be scaled up and adapted for future clinical use.

I've always been curious about how the human body repairs itself and how we can use that natural ability to develop new treatments. Through my background in regenerative medicine, I became increasingly interested in translating scientific discoveries into real-world applications. INTROS felt like the right opportunity to explore this, moving beyond academic research and contributing to the development of treatments that could one day reach patients.



One thing you left behind. One thing you brought with you. One thing you hope to find in your new life.

I left behind my favourite people and the places that felt like home. I carry their love and memories with me, hoping to grow into a better version of myself, both personally and professionally.

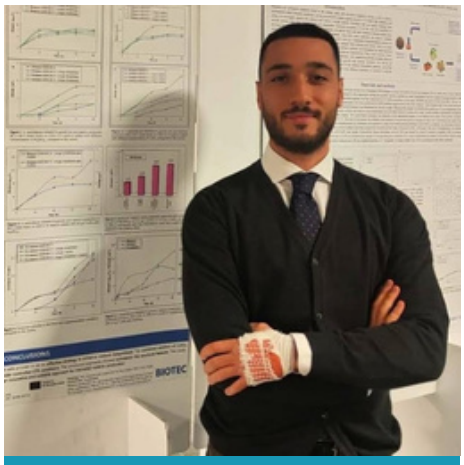


Exploring perspectives and flavors

I'm looking forward to building connections with people from academia, industry, and hospitals, and learning from their different perspectives. I'm also excited to experience new research environments across Europe and broaden my skills through training in dermatology, wound healing, and green innovation. What makes the MSCA journey special to me is its combination of scientific ambition, mobility, and collaboration, helping me develop the skills and industry connections needed for a future role in biotech or pharmaceutical R&D.

Outside the lab, I love exploring Berlin, discovering new parks, and trying food from different cuisines, from Vietnamese to Persian. My favourite place is a cute café in my neighbourhood, where I can slow down and enjoy a little break. I also enjoy getting to know the German way of life and wandering through open-air markets, hunting for unique second-hand treasures.

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Francesco Tancredi

DC4 - University of Maribor

Hi, I'm Francesco from Naples, Italy. I hold a BSc in Biomolecular and Industrial Biotechnology, where my thesis focused on optimizing culture media to increase melanin yield. I then completed an MSc in Molecular and Industrial Biotechnology, researching 3-component biomaterials for wastewater treatment. Following a post-grad internship at IFREMER working on marine bacterial exopolysaccharide hydrogels, I am now based at the University of Maribor.

I am working on bacterial cellulose which is a natural and environmentally friendly material produced by bacteria. My aim is to modify it using bioactive compounds to produce smart and healing materials suitable for wound treatment and skin restoration.
I am now establishing the conditions for its first production and optimizing its output. During the experiments, the most difficult task is expected to be obtaining stable material properties and integrating the natural active agents without losing their activity. Although the combination of microbiology and material science poses a number of challenges, I am genuinely excited to contribute to this project and advance the development of innovative biomedical solutions.

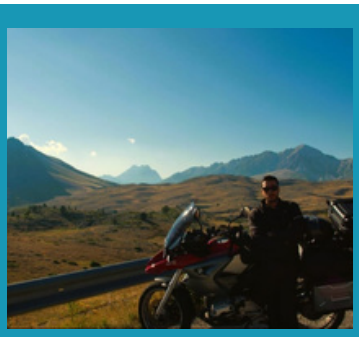
I have always been fascinated by bioprocesses and wanted to focus my PhD on combining bioproduction with biopolymer processing. The INTROS project was the perfect fit, offering a unique opportunity to bridge biotechnology and materials engineering. It allows me to transform sustainable biological processes into practical, innovative solutions that can make a real impact in biomedical applications.



Chasing opportunities and adventures

I am especially excited about the mobility and interdisciplinary training that are unique to MSCA. Unlike a PhD this path gives me access to high level workshops, secondments and direct contact with academic and industrial leaders all over Europe. I look forward to building a professional network developing important transferable skills and working with the best researchers in my field.

Moving to Slovenia is just the latest adventure for someone who loves trying new things! Coming from Naples, I hold my deep love for the sea, water sports, and Italian culture close to my heart. When I'm not in the lab, you will likely find me riding my motorcycle or exploring the great outdoors.



One thing you left behind. One thing you brought with you. One thing you hope to find in your new life.

Coming to Slovenia meant saying goodbye to my lifetime friends and family. Thankfully, I carried their support along, and my goal is to create a cozy place for myself here

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DC5 – Università di Pisa



Ayşe Ekicioğlu in

I'm Ayşe, originally from Türkiye. I studied Materials Science and Nanotechnology at Sabancı University in Istanbul before moving to Germany for my Master's in Biomaterials at FAU Erlangen-Nürnberg. My MSc research focused on developing electrically conductive hydrogels using alginate dialdehyde, gelatin, and polypyrrole for cartilage tissue engineering, exploring their structural, mechanical, and electrical properties.

My PhD focuses on developing bioresorbable optical sensors for wound healing. The idea is to monitor the healing process by exploiting the differences in optical properties of materials, more specifically, their reflactance. Eventually, these sensors should be able to do their job and disappear when they are no longer needed. One of my biggest challenges so far has been designing a systematic experimental plan, as there are many parameters that could affect the final structure. I had to find a way to test them methodically and understand their individual effects. The goal was to build a map showing how different parameters influence the structures we create, giving us a clearer direction for further experiments.

My older sister is an engineer who also works with sensors, so she was one of my first inspirations. Meanwhile, the more I learned about biomedical applications, the more interested I became in the field. INTROS caught my attention because it combines an international network working towards a common goal with the opportunity to experience industrial research through secondments.



One thing you left behind. One thing you brought with you. One thing you hope to find in your new life.

I left behind the life I built from scratch during four years in Germany, brought my hobbies to create familiar safe spaces, and hope to make Pisa my third home.



Excited to discover

I'm excited to be part of a group working towards a common goal, where everyone's different background can bring a fresh perspective when I get stuck. I'm also looking forward to the industrial secondments and international meetings. Honestly, give me a deadline and a trip to look forward to, and I'm usually extra motivated to get things done!

Outside the lab, I'm focusing on making new friends and making Pisa feel more like home. I love exploring new spots around the city, whether it's a café, a little shop, or somewhere to spend an afternoon, and slowly discovering my favourite places like a local. I'm also always happy to find an excuse for a trip, some tennis, or a hunt for vintage treasures.

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Romina Mokhtarbaf in

DC7 - Universidad del País Vasco

I'm Romina, a biomedical engineer from Iran, currently pursuing my PhD at the University of the Basque Country (UPV/EHU) in Spain. I hold both Bachelor's and Master's degrees in Biomedical Engineering, specializing in Biomaterials. My research interests include hydrogels, nanomedicine, drug delivery, and wound healing, particularly the development of multifunctional materials for biomedical applications.

My PhD research focuses on developing a multifunctional injectable hydrogel with hemostatic and wound-healing properties, under the supervision and with the support of Dr. Edorta Santos Vizcaíno and Dr. Rosa María Hernández. The aim is to create an all-in-one material that can promote hemostasis while also supporting tissue regeneration and providing antioxidant, antibacterial, and anti-inflammatory effects.

Currently, I am working on the early stages of material development, synthesis, and characterization, while exploring different approaches to optimize the hydrogel's properties. One of the main challenges is finding the right balance between injectability, mechanical stability, and biological performance. Ultimately, the goal is to develop an effective and practical wound care solution with the potential for future clinical and industrial applications.

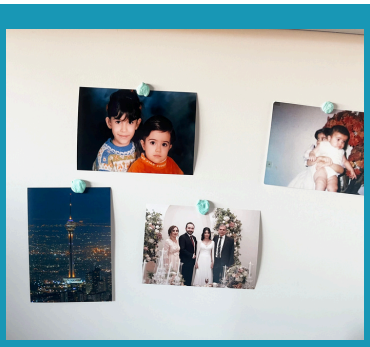
My background in biomedical engineering and biomaterials sparked my interest in developing innovative solutions for healthcare. During my previous research, I became particularly fascinated by hydrogels and their potential in wound healing. I chose INTROS because it allows me to build on my previous experience while exploring new approaches to biomaterials and contributing to research with real clinical impact.



Stronger through connections

What excites me most about the MSCA journey is its industrial component and the mobility opportunities it offers. I'm looking forward to gaining experience in different academic and industrial environments, learning from knowledgeable and experienced professionals, and connecting with people from diverse scientific and cultural backgrounds. I believe these experiences will help me grow both professionally and personally.

Since moving to Vitoria-Gasteiz, I've fallen in love with the city, its culture, and especially the kindness of its people. I'm lucky to have such welcoming and supportive colleagues in my research group. They've made me feel so at home that sometimes I don't even want to leave the lab! Meanwhile, I enjoy trying new foods, exploring new places, and making every moment count.



One thing you left behind. One thing you brought with you. One thing you hope to find in your new life.

I left behind my family and loved ones, but carry them in my heart every moment. I hope to find meaningful connections, new adventures, and a second home.

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DC8 – VITO



Giulia Cogo

I'm Giulia, and I come from northern Italy, where I grew up and studied. In 2025, I graduated from the University of Verona with a degree in Molecular and Medical Biotechnology. My thesis focused on the in vitro study of cells derived from pediatric cryptorchidism to investigate their potential role in testicular cancer development.

I started my PhD in May 2026 within the INTROS MSCA Industrial Doctoral Network. My project focuses on using mesenchymal stem cell-derived extracellular vesicles (MSC-EVs) to promote skin burn wound regeneration. The project is carried out between VITO and the University of Antwerp, here in Belgium. During this first stage, I have been working on identifying biological targets that could be engineered to improve the regenerative potential of MSC-EVs. This has been a deep dive into the EV field, which has been both a fascinating and challenging way to start my PhD journey.

When I was doing my Bachelor's degree, someone told me that one of the most important things to become a good researcher is to find a topic you are truly passionate about and follow that interest. I kept looking for mine, and eventually realised that the intersection between biology and engineering, with applications in regenerative medicine, could be my path.



One thing you left behind. One thing you brought with you. One thing you hope to find in your new life.

I left my family, friends, and pets back in Italy. I brought photos, little gifts, and familiar things that remind me of home wherever I go.



Out of the comfort zone in every way

One of the strengths of MSCA Doctoral Networks is the opportunity to learn beyond the traditional academic environment, moving between university and industry, connecting with people and pushing yourself out of your comfort zone. These are all aspects that really appeal to me and, alongside the research project itself, make me excited about this journey.

Since moving to Belgium, my life has changed in many ways. Some hobbies, such as cooking, reading and spending time outdoors in good company, have stayed with me, while others have made room for new ones. Recently, I have really enjoyed watercolour painting and long bike rides. I also love exploring Belgium through its local food, historical sites and art museums.

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Question of the Month

What is one thing you hope to learn beyond your research?



Nima

I hope to improve my German so I can connect with more people. I believe that learning the language will help me beyond everyday life, allowing me to expand my professional network, discover new opportunities, and build a stronger foundation for my future career here.



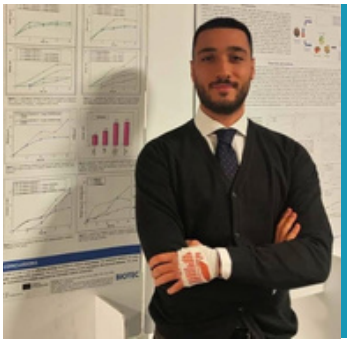
Louise

I hope to improve how I explain my research in a way that makes sense everyone. I want to communicate not just the numbers, but also why the research matters.



Roza

Beyond research, I hope to improve my communication and presentation skills, become more confident when sharing my ideas, and learn how to deliver my work clearly and effectively to different audiences.



Francesco

Beyond my research, I hope to expand my professional network, learn how to discuss my data clearly, while learning to challenge myself and my own perspectives.



Ayşe

I want to become more confident in public speaking and learn to communicate my research clearly, making complex scientific ideas understandable and interesting to different audiences.



Romina

I hope to develop a stronger entrepreneurial mindset, learning how to turn scientific ideas into real-world innovations, while gaining the confidence and skills to lead meaningful projects in the future.



Giulia

I would love to become better at presenting scientific work effectively to different audiences. Networking is another skill I look forward to developing throughout this journey.

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Written By: Ayşe Ekicioğlu

Our Kick-off Meeting

In mid-June, the INTROS Doctoral Candidates' Kick-off Meeting took place in Saarlouis, Germany, providing valuable insights into the project's structure, expectations, and collaborative framework.

The Project Management Team and Dr. Nazende Günay Türeli from MyBiotech GmbH delivered engaging seminars focused on soft skills and professional development. We also explored important project and contractual details, gaining a clearer understanding of the consortium's expectations, our responsibilities, and our rights as doctoral candidates.

These sessions also encouraged open discussions, clarified practical questions, and helped us better understand how to navigate the project successfully together.



Team building games



- **Not all fun and games**

Through interactive team-building games, we explored trust, communication, and teamwork. In one activity, blindfolded participants worked together to form a square using a rope, relying on strategic planning, trust, and constructive feedback.

In another, teams of three built the tallest freestanding structure using spaghetti and other materials. This challenge highlighted how diverse strengths can complement individual weaknesses and lead to better collective results.

Furthermore, the meeting offered an excellent opportunity to connect with fellow doctoral candidates, exchange perspectives, and establish relationships that will support us throughout our shared research journey.



Upcoming Events

23-27 November:
1st international meeting, training school and the review meeting at Charité, in Berlin

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