

# ARTVOC & VOLATEVS



Siong Fong **Sim**

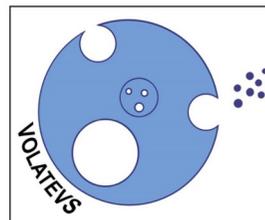
Universiti Malaysia Sarawak



**Analysis of the volatile organic compounds emitted  
by extracellular vesicles for disease diagnosis**

**VOLATEVS**

**1 Nov 2022 – 31 Oct 2026**



**Marie Skłodowska-Curie Actions**  
**MSCA Staff Exchange 2022**

- **Eesti Maaulikool (EMU, ESTONIA)**
- **Universita Degli Studi Di Roma Tor Vergata (UNITOV, ITALY)**
- **Institut De Chimie Macromoleculara Petru Poni (ICMPP, ROMANIA)**
- **Lund University (LUND, SWEDEN)**
- **Instituto De Investigaciones Cientificas Y Servicios De Alta Tecnologia Asociacion De Interes Publico (INDICASAT, PANAMA)**
- **Monash University Malaysia Sdn Bhd (MONASH, MALAYSIA)**
- **Universiti Malaysia Sarawak (UNIMAS, MALAYSIA)**
- **Sc MGM Star Construct SRL (MGM, ROMANIA)**



**Volatolomic Approaches for Improving Success Rates  
in Assisted Reproductive Technology**

**ARTVOC**

**31 Oct 2023 – 30 Sept 2027**

- **Eesti Maaulikool (EMU, ESTONIA)**
- **Tervisetechnoloogiate Arenduskeskus As (CCHT, ESTONIA),**
- **Universitat Rovira I Virgili (URV, SPAIN),**
- **Sc MGM Star Construct SRL (MGM, ROMANIA)**
- **Universidad De Caldas (UDC, COLOMBIA),**
- **Universidad De Pamplona (UP, COLOMBIA),**
- **Universiti Malaysia Sarawak (UNIMAS, MALAYSIA)**
- **Universidad Cooperativa De Colombia (UCC, COLOMBIA)**



**MSCA 2023**



# Institutional Visibility and Reputation



**Marie Skłodowska-Curie Actions (MSCA) Staff Exchanges (SE)**

The MSCA Staff Exchanges (SE) support short-term international and inter-sectoral exchanges of staff involved in research and innovation. The goal is to build sustainable, collaborative research projects between organisations from both the academic and non-academic sector — especially SMEs — across Europe and beyond. Through these exchanges, staff gain new knowledge, skills, and career development opportunities, while participating organisations strengthen their research and innovation capabilities.




Learn more

**Who can apply** Staff Exchanges are open to international consortia of universities, research institutions, businesses, SMEs and other non-academic organisations. Individual staff members are selected by their sending organisations.

Overview

Duration of Research Project	Set-up of Consortia	Secondments of Staff	Mobility



## Testimonials

**Professor Dr Sim Siong Fong (Malaysia)**  
 Professor, Faculty of Resource Science & Technology Universiti Malaysia Sarawak (UNIMAS)

*"The MSCA SE Programme enables borderless cross-disciplinary collaboration, multiplies networking opportunities, and empowers individuals to expand their personal potential. Through this Programme, my horizons of collaboration and knowledge have expanded, opening me to endless possibilities."*



Find out more

**ARTVOC - Volatolomic approaches for improving success rates in assisted reproductive technology**

Volatolomics is an emerging field in medical research that focuses on analysing the volatile organic compounds (VOCs) emitted by the human body. These VOCs are small molecules that can be detected in breath, sweat, urine and other bodily fluids. The idea behind volatolomics is that changes in the composition or concentration of these VOCs could potentially serve as biomarkers for various health conditions. The MSCA SE project ARTVOC aims to take volatolomics a step further for non-invasively assessing the quality of embryos. The aim is to identify the most viable embryos for transfer and enhance success rates in in vitro fertilisation procedures.

# Strengthens UNIMAS's Research Profile

Participate directly in cutting-edge projects

fostering knowledge transfer, interdisciplinary innovation, and long-term strategic partnerships.



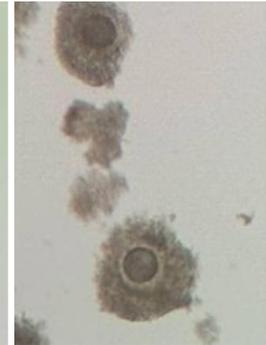
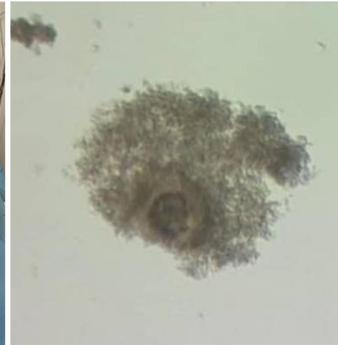
Ultrasound



Collecting Embryos



Oocyte Extraction



Bad and Good Embryos



Post-doctorates



Technical Staffs



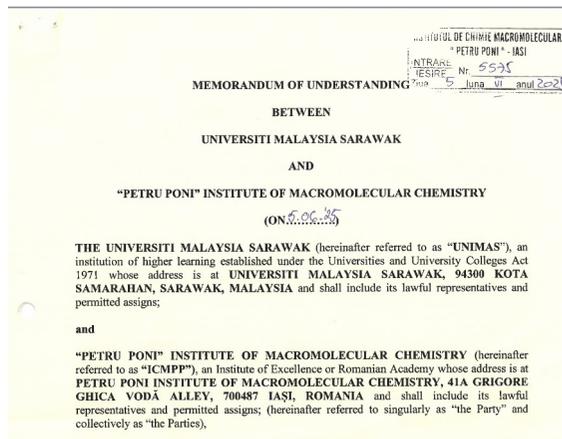
PhD Candidates

# Capacity Building and Skill Development

Share expertise, publish internationally, co-supervise cross-national research initiatives

Memorandum of Understanding  
New Research Collaboration  
Cp-supervision  
Publication

International Journal of Biological Macromolecules 321 (2025) 146208



Contents lists available at ScienceDirect

International Journal of Biological Macromolecules

journal homepage: [www.elsevier.com/locate/ijbiomac](http://www.elsevier.com/locate/ijbiomac)



Synergistic action of chaotropic agents on the partial casein unfolding and solution stabilization for improved electrospinnability and herb extract loading

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# Global Networking and Collaboration



Sep - Oct 2025

Secondment

Project Meeting

Conference ARTEV - VOLATEVS/ARTOV/MySEV/UNIMAS/Sarawak General Hospital

Training School of Chromatography and Spectroscopy - Postgraduates and Researchers

Community Reach Out - Science Carnival - In Collaboration with Professional Body of Chemists





## Cultural Exchange and Understanding





# Thank You

Regardless of nationality, we share a common passion for the collective goal of improving the world through science