



NEWSLETTER NO. 3

2-3 WELCOME

3-4 TRAINING HIGHLIGHTS

5-6 OUR DOCTORAL CANDIDATES

7-8 OUR TEAM: IBET

9 CONFERENCES & AWARDS

10 UPCOMING EVENTS

A WARM WELCOME TO THE THIRD EDITION OF THE CAARE NEWSLETTER!



Figure 1: Consortium Meeting in November 2025 in Hamburg, hosted by University of Hamburg

Over the past months, the CAARE Doctoral Network has continued to gain momentum, with strong engagement across the consortium and steady progress in all work packages. Our doctoral candidates are highly motivated and actively advancing their research, contributing to the ambitious scientific and technological goals of CAARE. Overall, the project is firmly on track.

The CAARE consortium continues to grow: we are pleased to welcome three new associated partners, ArcticZymes Technologies, BioChromatographix International (BCI), and Thermo Fisher Scientific, who bring valuable expertise ranging from enzyme solutions to next-generation chromato-

graphy and advanced analytical technologies. Their involvement further strengthens our technological capabilities and opens new opportunities for collaboration and innovation within the network.

This period also marks an important change within the CAARE team. We would like to sincerely thank Verena Beck, who has been part of CAARE from the very beginning – starting already during the proposal phase – and has played a key role as project manager in shaping and guiding the network. Verena, it has been a pleasure working with you – we wish you all the very best for your future, and you will always remain a member of CAARE.

At the same time, we are very happy to welcome Barbara Petschacher, who is joining Patricia Pereira Aguilar as project manager. Barbara is acib's Chief Sustainability Officer with strong experience in research management and EU-funded projects. She has previously worked as project manager in the MSCA Doctoral Network ConCO₂rde and brings valuable expertise in coordinating interdisciplinary research and training networks. We are delighted to have you on board and look forward to working together!

The past period has been marked by inspiring exchanges, hands-on training, and outreach activities – from joint training events to engagement with students and scientific achievements across the network.

Here are some highlights from the past months:

For more information and access to previous newsletters, visit our project website: www.caare-project.eu.



Figure 2: Barbara Petschacher, our new Project Manager

Yours sincerely,
The CAARE Team



TRAINING HIGHLIGHTS

BUILDING SKILLS ACROSS DISCIPLINES

Over the past months, CAARE doctoral candidates have taken part in a diverse portfolio of training activities, covering both scientific fundamentals and transferable skills.

Online trainings:

Through dedicated online sessions, our doctoral candidates deepened their understanding of key concepts shaping modern research:

TST2 FAIR: Good scientific practices, open science & open data (7–8 October 2025), led by Ms. Wedlich-Zachodin and colleagues from KIT Library, introduced the principles of open science, data management practices, and strategies for transparent and reproducible research.

ST5: Process Analytical Technology (PAT) (23–24 October 2025) by Jürgen Hubbuch (KIT) provided valuable insights into modelling approaches and real-world case studies, demonstrating how PAT tools support process understanding from upstream to downstream.

Additionally, **ST8:** Economic and Environmental Modelling (12 and 18 September 2025) by Sara Badr from Tokio University (Japan) introduced key concepts in process modelling, techno-economic analysis, and environmental impact assessment, strengthening the candidates' ability to evaluate bioprocesses holistically.

Together, these trainings equipped doctoral candidates with essential skills for rigorous, data-driven, and responsible research.

Hamburg training week (25 November – 1 December 2025)

A major highlight was the in-person training programme in Hamburg, which brought together doctoral candidates for an intensive and inspiring week of hands-on learning. Hosted by the University of Hamburg, the programme combined lectures, practical sessions, and site visits, offering participants a unique opportunity to experience cutting-edge research environments first-hand. From clean-room training and nanofabrication to the DESY synchrotron visit, participants gained direct exposure to advanced technologies used in bionanoparticle research.

The scientific programme covered a broad spectrum of topics:

ST2: Scattering technologies and biophysical characterisation of bionanoparticles by Tais Gorkhover (University of Hamburg)

ST3: Nanotechnology and micro- and nanofabrication methods by Irene Fernandez (University of Hamburg), including hands-on activities and facility visits

ST6: Fluid flow and particle transport in downstream processing by Wolfgang Peukert (FAU), providing insights into fundamental transport phenomena relevant for purification.

These were complemented by TST-04: Entrepreneurship – Part 1 also led by Irene Fernandez, where doctoral candidates explored innovation pathways, learned how to pitch their ideas, and connected their research to real-world applications.

Beyond the technical content, the training week fostered exchange, discussion, and collaboration across the network – strengthening connections and reinforcing the interdisciplinary spirit of CAARE.



Figure 3: Clean Room Training in Hamburg

Further training

The programme was further enriched by ST4: Multidimensional Characterisation (22-23 April 2026) by Johannes Walter (FAU) in Erlangen, providing additional perspectives on advanced analytical strategies for complex bioprocesses.



Figure 4: In-person Training in Hamburg hosted by the University of Hamburg

DOCTORAL CANDIDATE FINJA PROBST



Scientific mission:

Finja Probst is a PhD student at acib (Vienna, Austria), working at the interface of bioprocess engineering and downstream processing. Within CAARE, she focuses on simulation and modelling of downstream processes for bionanoparticles – from convective media to continuous flow ultracentrifugation – while also tackling purification strategies and analytical characterisation of products and impurities.

Background & perspective:

Her work builds on a strong foundation in model-based process development, with a particular interest in continuous production systems using HEK293 cells for virus-like particles.

Favorite Lab Gadget:

Parafilm – simple, but essential.

Beyond the Lab:

Finja enjoys experimenting – whether in the kitchen, with plants, or while travelling. Ideally, she combines both worlds: hiking while exploring new places.

Spirit Animal:

A beaver – persistent, constructive, and always building something.

„You just need
to want it.“

her grandpa

DOCTORAL CANDIDATE PIETRO VOLTAN



Scientific mission:

Pietro Voltan, PhD student at Icosagen (Tartu, Estonia), works on bionanoparticle engineering and the development of advanced technologies for their production.

Background & perspective:

With a background in nanobiotechnology, Pietro is particularly interested in innovative therapeutic approaches using pseudovirions and virus-like particles, bridging fundamental science and medical application.

Favorite Lab Gadget:

Spectrometer – because every signal tells a story.

Beyond the Lab:

When he's not in the lab, Pietro is on the mat – practicing yoga and even training to become a yoga instructor.

Spirit Animal:

A mantis shrimp – underestimated, yet capable of packing a powerful punch.



„Everything is
Useful“

PARTNER INTRODUCTION

IBET INSTITUTO DE BIOLOGIA EXPERIMENTAL E TECNOLÓGICA



Located in Oeiras, Portugal, iBET – Instituto de Biologia Experimental e Tecnológica is a leading independent research institute dedicated to biotechnology innovation and application.

Since its foundation in 1989, iBET has been bridging science and industry, developing and transferring cutting-edge solutions for global biopharma partners as well as the Portuguese pharmaceutical and agri-food sectors.

At the core of iBET's work is a strong expertise in bioprocess development for biopharmaceuticals, advanced therapies, and vaccines, supported by advanced capabilities in bio-analytics, cell models, immunology, and structural biology. With a vibrant community of around 270 researchers – including more than 110 PhDs and 40 doctoral students –

iBET combines scientific excellence with a clear focus on real-world impact and industrial application.

Within CAARE, iBET plays a central role by leading Work Package 3 on the recovery of bionanoparticles, covering both batch and continuous processing strategies. The institute brings extensive experience in downstream processing and bionanoparticle characterisation, with a strong emphasis on scalability and industrial relevance. In addition, iBET hosts two doctoral candidates working on continuous purification and scale-up approaches, directly contributing to CAARE's mission to advance next-generation biomanufacturing. Beyond its research contributions, iBET is actively involved in training and technology transfer, supporting the translation of laboratory processes into industrial and GMP-compliant environments.



Figure 5: the people of iBET

www.ibet.pt

KEY PEOPLE BEHIND CAARE AT



Dr. Cristina Peixoto

Leads the Downstream Process Development Lab and co-coordinates the Late-Stage R&D and Bioproduction Unit, with a focus on scalable purification of complex biopharmaceuticals, particularly viral vectors.

Dr. Ricardo Silva,

Principal Scientist, contributes expertise in downstream processing of complex biotherapeutics, including chromatography, modelling, and process optimisation.



Dr. Tiago Faria,

Senior Scientist, works on the development of production and purification processes for viral vectors such as lentivirus, adenovirus, and AAV.

CONFERENCES & AWARDS

The past months have also been marked by strong visibility of the CAARE network at major international conferences – bringing our research into the spotlight and fostering exchange with the wider bioprocessing community.

At the BioProcess International Europe 2026 in Vienna, members of the acib team represented CAARE and engaged in four days of scientific discussions, industry exchange, and networking. A particular highlight of the conference: Markus Mozgovicz's outstanding success, receiving the First Prize Poster Award for his work on bionanoparticle recovery. His poster attracted strong interest, sparked many

conversations, and ultimately convinced the jury. This achievement builds on an already impressive milestone: Markus also won a poster award at Vaccine Technology X in Porto, where his research stood out for its scientific depth, clarity, and relevance.

Across both conferences, the lively discussions and exchange of ideas reflected what CAARE is all about – connecting science, innovation, and community. These recognitions highlight not only individual excellence but also the strength of the network as a whole.

Congratulations, Markus, on this fantastic success – and on what is clearly becoming an award-winning journey!



Figure 6: Our acib team at the BPI Europe 2026 in Vienna.



Figure 7: Award winning poster announcement at the BPI Europe 2026 in Vienna

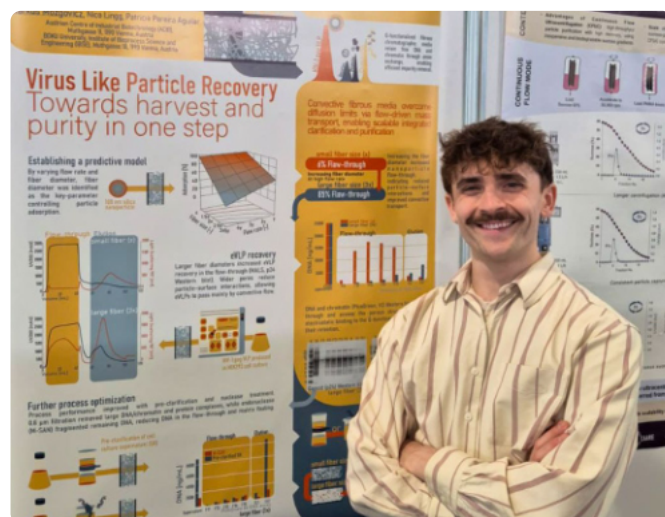


Figure 8: First prize poster at the Vaccine Technology X Conference in Porto



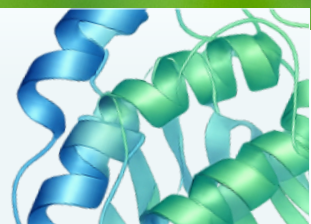
UPCOMING EVENT

EUROPEAN SUMMIT OF INDUSTRIAL BIOTECHNOLOGY

10-12 NOVEMBER 2026
GRAZ, AUSTRIA

TOGETHER
WITH **MaPEB**

INTERNATIONAL CONFERENCE ON METABOLIC
& PROTEIN ENGINEERING FOR BIOSYNTHESIS
12-13 NOVEMBER 2026



You want to connect with our CAARE coordinators and members in person? Meet us at the European Summit of Industrial Biotechnology: 10-12 November 2026 in Graz. At these sessions you can find members of the CAARE consortium.

11.11. • 09:00-11:00, Manufacturing of vaccines, gene therapies & advanced therapy medicinal products,
Patricia Pereira Aguilar (acib, Session Chair), Nico Lingg (acib, Session Chair), Christian Mayer (AGES), [Read more](#)

11.11. • 13:30-15:30, Creating robust bioprocesses through advanced process analytical technology and automation, *Jürgen Hubbuch (KIT), [Read more](#)*

11.11. • 16:00-18:00, Scalable bioprocesses through advanced computational tools, *Finja Probst (acib), [Read more](#)*

11.11. • 16:00-18:00, CAARE – A doctoral network for bionanoparticles in vaccine delivery and gene therapy,
Alois Jungbauer (acib, Session Chair), Patricia Pereira Aguilar (acib, Session Chair), Irene Fernandez (University of Hamburg); Enerel Ariunbold (iBET), Soledad López Félix (Icosagen), Markus Mozgovicz (acib), Sitong Xu (FAU), Giulia Polazzo (KIT), [Read more](#)

12.11. • 10:00-12:00, Intensified and continuous biomanufacturing,
Nico Lingg (acib, Session Chair), Rebecca Hochstein (Thermo Fisher Scientific), Cristina Peixoto (iBET); [Read more](#)

See you there!

www.esib.at

[Register here](#)

NEWSLETTER EDITORIAL TEAM

Coordinator: Alois Jungbauer, Patricia Aguilar, acib

Newsletter text: Katharina Schwaiger, acib;

Layout: Dietmar Cseh, acib; **Pictures:** CAARE & Partners

Contact: patricia.aguilar@acib.at



CAARE received funding from the European Union's Horizon Europe research and innovation programme under the Marie Skłodowska Curie grant agreement No 101168862.

