

ESTIV EARLY CAREER NETWORK: A GROWING INITIATIVE TO SUPPORT THE NEXT GENERATION OF NAMs-ORIENTED TOXICOLOGISTS

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The European Society of Toxicology *In Vitro* (ESTIV) is a Europe-based scientific society dedicated to the promotion and advancement of *in vitro* and *in silico* (computer-based) toxicology across Europe and beyond (*European Society of Toxicology In Vitro*, 2026). Since its establishment in 1994, ESTIV's core mission has been to support the development and use of alternative approaches to animal testing, often referred to as New Approach Methodologies (NAMs), in line with the principles of the 3Rs (Replacement, Reduction, and Refinement). Over the past three decades, ESTIV has played a pivotal role in shaping modern toxicology by fostering innovation, education, and collaboration within the scientific community.

ESTIV has successfully organized and sustained a broad portfolio of activities that have consistently contributed to the advancement of toxicological sciences. These include (1) the biennial International ESTIV Scientific Congress, held in various European countries and covering a wide spectrum of contemporary topics in toxicology, (2) education and training initiatives, most notably the annual “ESTIV Applied *In Vitro* Toxicology Course”, which provides hands-on training in NAMs. This course is now widely recognized, particularly by the European Federation of Toxicologists and European Societies of Toxicology (EUROTOX) for obtaining necessary training under the ERT module B19, (3) networking and collaboration, with ESTIV serving as a central platform that brings together scientists from academia, industry, and regulatory agencies, through our corporate members, partner organizations and societies, to exchange knowledge, share best practices, and harmonize

testing strategies and promote animal-free and human- relevant science, (4) awards and bursaries that support researchers at different career stages, including Early Career Researchers (ECRs), through travel grants and prestigious distinctions such as the “Liebsch & Spielmann Award” for validation of alternative methods, ESTIV Early Career Researcher Award, and multiple Best Poster and Oral Presentation awards presented at international scientific meetings, and (5) scientific publishing, as ESTIV maintains close associations with leading journals in the field, including *Toxicology in Vitro* and *Alternatives to Laboratory Animals*.

Recognizing the importance of investing in future leaders and ensuring the long-term sustainability of the society, ESTIV has recently taken strategic steps to actively involve ECRs in its governance structure. This forward-looking initiative aims to facilitate intergenerational knowledge transfer, encourage innovative perspectives, and provide leadership and professional development opportunities for the next generation of scientists shaping the future of NAMs and toxicology. As a direct outcome of this vision, the ESTIV Early Career Network (ESTIV- ECN) was established in 2024 (ESTIV Early Career Network, 2026). The ESTIV-ECN leads four well-defined activities (1) providing career development resources and mentorship, (2) promoting networking and collaboration, (3) offering discounted conference fees and competitive awards to enhance accessibility, and (4) enabling early career members to actively participate in ESTIV decision-making processes, thereby strengthening their engagement with the society.

Among these activities, the ESTIV-ECN mentorship programme stands out as a flagship activity supporting career development and professional growth. The programme primarily targets ECRs holding a Bachelor's, Master's, or PhD degree, or those at the postdoctoral stage or equivalent (up to ten years since their most recent academic degree), from academia, industry, or regulatory bodies who are active in *in vitro* toxicology or related disciplines. Mentors and mentees are matched based on shared scientific or sector-specific interests, fostering meaningful and productive mentor-mentee relationships. Participants are expected to be proficient in English to ensure effective communication throughout the programme. The structured mentorship programme includes six one-to-one online meetings, conducted monthly (one meeting per month). During these meetings, participants discuss a broad range of transferable and soft skills, such as professional development, career path planning, leadership, communication, and work-life balance. Mentors and mentees are also encouraged to tailor discussions by introducing additional topics of mutual interest, allowing the programme to adapt to individual needs and career aspirations. Midterm follow-up meetings, final evaluations, and structured feedback sessions are integral components of the programme, ensuring continuous quality improvement. Upon successful completion, mentees and mentors receive certificates of participation and appreciation, respectively, in recognition of their commitment and contributions.

The first ESTIV-ECN mentorship programme for 2025, themed “*Dare to Interact*,” was successfully completed and attracted a diverse group of mentors and mentees from both academia and industry across Europe. Building on this success, the second ESTIV-ECN mentorship programme for 2026, themed “*Navigate Your Future*,” is currently open and welcoming applications from interested participants (ESTIV-ECN Career Development Session, 2026).

In addition to the mentorship programme, the ESTIV-ECN actively contributes to career development through dedicated sessions at major scientific events. Notably, building on very successful ECN session at the ESTIV 2024 meeting in Prague, another dedicated ESTIV-ECN career development session is planned as part of the 23rd International ESTIV Congress (ESTIV 2026), scheduled to take place in Maastricht, The Netherlands, from 29 June to 2 July 2026 (*ESTIV-ECN Career Development Session*, 2026). The session will include a plenary lecture on mastering essential soft skills, followed by parallel interactive activities focusing on (1) CV review, (2) insights into start-up opportunities, and (3) effective networking strategies for professional success.

To further strengthen networking and collaboration, ESTIV-ECN has initiated partnerships with other early career networks at the international level. During the 13th World Congress on Alternatives and Animal Use in the Life Sciences (WC13), held in Rio de Janeiro, Brazil, from 31 August to 4 September 2025, ESTIV-ECN and the Early Career Forum (ECF) of EUROTOX agreed to co-organize conference sessions dedicated to early-stage researchers. Furthermore, discussions are currently ongoing with ASPIS Academy, PARC Junior Community, Asian Society and Asian Federation of Societies for Alternatives to Animal Experiments (AFSAAE), to expand such collaborations during the 23rd International ESTIV Congress (ESTIV 2026), with the aim of establishing a coordinated agenda and joining forces to deliver enhanced services and activities for ECRs in Europe and beyond.

The ESTIV-ECN team, together with the ESTIV Board would like to take this opportunity to invite toxicologists at all career stages in academia, private and public sectors as well as other stakeholders to enrol in the second edition of the ESTIV-ECN mentorship program (*Mentorship Programme, ESTIV Early Career Network*, 2026) and register as members in ESTIV and to participate in the incoming the 23rd International Congress (ESTIV 2026).

CRedit authorship contribution statement

Mohamed F. Abdallah: Conceptualization, Writing – original draft. **Luiz Ladeira:** Conceptualization, Writing – review & editing. **Peter Pôbiš:** Writing – review & editing. **Andreas O. Stucki:** Writing – review & editing. **Bambou Xuezhuan Tan:** Writing – review & editing. **Benoit Maisonneuve:** Writing – review & editing. **Clive Roper:** Writing – review & editing. **Helena Kandárová:** Conceptualization, Writing – review & editing.

Declaration of competing interest

ESTIV is a non-profit scientific society. The authors of this editorial as well as the ESTIV Board members declare that there is no conflict of interest.

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Data availability

No data was used for the research described in the article.

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