VirION Doctoral Network

Inter-organelle crosstalk in viral infections: Identifying peroxisome-related targets for novel broad-spectrum antiviral strategies

HORIZON EUROPE – Marie Skłodowska-Curie Actions – Doctoral Networks 2025
HORIZON-MSCA-2025-DN-01-01
Grant Agreement Nº. 101312114

RECRUITMENT GUIDELINE

1. About VirION

Viral infections pose a major threat to global health, with the potential for pandemic outbreaks causing profound medical and socio-economic impacts. The frequent occurrence of zoonotic spillover events, rapid virus adaptation, increased antiviral drug-resistance, and limited 'one bug, one drug' efficacy of current antiviral drugs, leave the human population highly vulnerable to newly emerging viruses, as demonstrated by the COVID-19 pandemic. There is an urgent need for a paradigm shift in antiviral research, with a focus on developing therapies that target the host rather than the virus, offering the potential for broad-spectrum antiviral effectiveness. Peroxisomes, essential cell organelles involved in cellular lipid homeostasis, represent promising targets for such innovative strategies, due to their critical roles in both viral replication and the host immune response. However, progress in this promising field is impeded by a lack of experts with combined expertise in virology and peroxisome/organelle biology. The VirION programme addresses this gap by training 15 Doctoral Candidates (DCs) in an interdisciplinary framework that integrates virology, peroxisome biology, systems biology, and entrepreneurial thinking. Our trainees will be uniquely positioned to identify peroxisome-associated druggable targets, develop innovative tools and models, and drive the development of host-directed, broad-spectrum antiviral strategies. In VirION, academic institutions, medical research centres, research institutes, and industrial partners will synergise to provide DCs with cutting-edge research expertise in this groundbreaking field, alongside essential interpersonal skills and best practices. This comprehensive training will enhance their employability as future leaders and strengthen Europe's capacity to tackle the growing threat of viral infections.

2. Overview of the VirION training programme

The VirION Training Programme is based on the Principles of Innovative Doctoral Training and aligns with the MSCA Guidelines on Supervision and the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers. VirION will graduate Doctoral Candidates (DCs) trained and mentored by an excellent consortium of leading European experts across the fields of virology, peroxisome (organelles) biology, intracellular signalling, immunology, 3D cell models, organ-on-chip technology, drug discovery, transcriptomics, metabolomics, lipidomics, proteomics, and AI. The consortium includes 10 top academic institutions, 3 academic medical centres, 1 research institute and 7 industrial partners. The programme provides a comprehensive research and innovation environment, with training in individual research projects, workshops, advanced courses, transferable skills, and conference attendance. DCs will also undertake secondments across sectors, disciplines, research groups, and countries, enhancing their mobility and preparing them for leadership roles in academia, medical centres, and industry worldwide.

VirION's specific training objectives are: 1) to provide cutting-edge interdisciplinary, and intersectoral training designed to identify new cellular targets for novel therapeutics; 2) to equip

young researchers with critical transferable skills with a focus on ethics, inclusivity, and the ability to translate research challenges into impactful innovations; 3) to enhance the employability and competitiveness of DCs in academic, medical, and industrial sectors by offering hand-on interdisciplinary, international, and intersectoral training; 4) to establish a vibrant and sustainable network of young researchers fostering lasting connections, peer support and knowledge exchange to disseminate best practices in virology, cell biology and related fields across Europe. The training programme is structured into two main pillars: A) individual training tailored to each DC, provided at the host institution and including local scientific and transferable skills courses, personalized career development plans and external training through active participation in international events; B) network-wide training organized by the VirION consortium providing training by academic and industrial experts through advanced scientific courses, transferable skills modules and progress workshops.

3. Eligibility Criteria

All interested applicants who meet the eligibility requirements (irrespective of age, gender, race, disability, religion or ethnic background) are encouraged to apply.
Prospective Doctoral Candidates must comply with the following requirements:

- NOT own a doctoral degree at the date of recruitment. (researchers who have successfully defended their doctoral thesis but have not yet been formally awarded the doctoral degree will NOT be considered eligible)

- Mobility Rule. Applicants MUST NOT have resided or carried out their main activity (work, studies, etc.) in the country of the Recruiting Institution for more than 12 months in the 36 months immediately before the recruitment date. (compulsory national service, short stays, such as holidays, and time spent as part of a procedure for obtaining refugee status under the Geneva Convention are not considered)

- Fulfil the requirements to enroll in the doctoral programme elected by the Recruiting Institution/Country

- Be fulltime dedicated to the project

- Be willing to spend a prolonged period in another institution/country of the VirION network during the Ph.D. thesis period, to implement the secondments planned for the DC vacancy.

Additional requirements might also apply (e.g., internationally recognized English language certification and/or selection features based on local regulations). Details on eligibility criteria for each specific DC vacancy are provided by the Recruiting Institution on its EURAXESS announcement of the position. Please also refer to Section 5 of this Recruitment Guideline.

4. Participating Institutions

Recruiting Institution	Ph.D. Awarding Institution
Universidade de Aveiro (UAveiro, Portugal)	UAveiro
Stichting Amsterdam UMC (AUMC, Netherlands)	Universiteit van Amsterdam (UvA); Stichting VU (VUA)
Julius-Maximilians-Universitat Wurzburg (JUW, Germany)	JUW
Katholieke Universiteit Leuven (KUL, Belgium)	KUL

Philipps Universitaet Marburg (UMR, Germany)	UMR
The Pirbright Institute LBG (TPI, UK)	UoS
University of Southampton (UoS, UK)	UoS
Cellularis Biomodels LDA (CelBio, Portugal)	UAveiro
Academisch Ziekenhuis Leiden (LUMC, Netherlands)	LUMC

5. Open positions

VirION will hire 15 Doctoral Candidates under employment contracts that shall start in the first semester of 2027, and that are going to be supported by the European Commission (HORIZON-MSCA-2025-DN-01).
The hired DCs will also be enrolled as PhD students in a PhD Program selected by the Recruiting Institution and shall comply with the applicable requirements of the targeted PhD Program. (Keep in mind that, while some PhD Programmes might require a 48-month period of doctoral studies to award the Ph.D. degree, the employment contracts cannot last longer than 36 months. Refer to the table below to learn the different institutional requirements).
VirION endorses an inclusive recruitment strategy and welcomes applicants regardless of gender, religion, ethnicity, disability, sexual orientation, political views, language, age or nationality.

Fellow	**Recruiting Institution**	**PhD Enrolment**	**Duration**
DC1	UAveiro	UAveiro	36 months
Project Title	Deciphering the mechanisms underlying the regulation of the peroxisome-dependent antiviral		
Supervisors	Daniela Ribeiro (UAveiro) & Hans Waterham (AUMC)		
DC Profile	For this position, we are looking for a proactive, highly motivated and collaborative PhD candidate with a strong interest in virus-host interactions and cell biology. The project will investigate how peroxisomes regulate the host antiviral response, by investigating the interplay between peroxisomal metabolism, dynamics, and antiviral signalling. The underlying mechanisms will be validated in advanced in vitro models. The candidate will work at the interface of virology, cell biology and metabolism, using approaches including mammalian cell culture, viral infection and response assays, and molecular, cell biological and biochemical techniques. Previous hands-on experience with virological techniques and/or mammalian cell culture is strongly preferred. The project also includes training in AI-assisted omics analysis and antiviral testing through international secondments.		
Requirements	• Master's degree (or legally equivalent) in Biomedical Sciences, Medicine, Biology, Molecular and Cell Biology, Biochemistry, Biological Engineering, Biomedical Engineering, Genetics. • Experience with mammalian cell culture, molecular/cell biological/genetic techniques. • Experience with fluorescence microscopy, virological techniques and/or (multi)omics analysis is advantageous. • Strong interest in virus–host interactions and cell biology. • Excellent experimental and analytical skills, organized, flexible, open and critical attitude, multidisciplinary interest. • Motivated, proactive, and able to work independently, in a team and collaboratively within an international, interdisciplinary research network.		

	• Excellent written and spoken English communication skills (official proof of English language proficiency is required).		
Planned Secondments	OMINIUMAI (Portugal), AUMC, JUW		
Fellow	**Recruiting Institution**	**PhD Enrolment**	**Duration**
DC2	AUMC	UvA	36 months
Project Title	Systematic evaluation of the role of peroxisome metabolic pathways in viral infections		
Supervisors	Hans Waterham (AUMC) & Lieve Naesens (KUL)		
DC Profile	For this position we are looking for a proactive, highly motivated and collaborative PhD candidate with a strong interest in virus–host interactions and cellular metabolism. The project will investigate how peroxisomal metabolic pathways influence virus infection using multi-omics analyses, gene deletion studies (CRISPR-CAS9) and peroxisomal inhibitors and modulators, with validation in iPSC-derived cell models. The candidate will work at the interface of virology, cell biology and metabolism, using approaches including mammalian cell culture, viral infection and response assays, and molecular, cell biological and biochemical techniques. Previous hands-on experience with virological techniques and/or mammalian cell culture is strongly preferred. The project also includes training in viral infection techniques, AI-assisted omics analysis and antiviral testing through international secondments.		
Requirements	• Master's degree or equivalent in biomedical sciences, molecular/cell biology, biochemistry, virology, applied genetics, life sciences, or a related discipline. • Experience with mammalian cell culture, molecular/cell biological and genetic techniques. • Experience with fluorescence microscopy, quantitative cellular/metabolic assays, CRISPR/Cas9 genome editing, virological techniques and/or (multi)omics analysis is advantageous. • Strong interest in virus-host interactions. • Excellent experimental and analytical skills, organized, flexible, open and critical attitude, multidisciplinary interest. • Motivated, proactive, and ability to work independently, in a team and collaboratively within an international, interdisciplinary research network. • Excellent written and spoken English communication skills (official proof of English language proficiency is required).		
Planned Secondments	UAveiro, OMINIUMAI (Portugal), KUL		
Fellow	**Recruiting Institution**	**PhD Enrolment**	**Duration**
DC3	AUMC	UvA	36 months
Project Title	Systematic evaluation of the consequences of viral infections for peroxisome-associated cellular processes		
Supervisors	Hans Waterham (AUMC) & Bettina Warscheid (JUW)		
DC Profile	For this position, we are looking for a proactive, highly motivated and collaborative PhD candidate with a strong interest in virus–host interactions and cellular metabolism. The project will investigate how virus infections affect peroxisome-associated cellular processes, and		

	whether drugs targeting these processes can enhance the antiviral response, using multi-omics analyses and pharmacological interventions, with validation in iPSC-derived cell models. The candidate will work at the interface of virology, cell biology and metabolism, using approaches including mammalian cell culture, viral infection and response assays, molecular, cell biological and biochemical techniques, including metabolic flux analysis and advanced cell imaging approaches. Previous hands-on experience with virological techniques and/or mammalian cell culture is strongly preferred. The project also includes training in viral infection techniques, AI-assisted multi-omics analysis and proteomics through international secondments.
Requirements	• Master's degree or equivalent in biomedical sciences, molecular/cell biology, biochemistry, virology, applied genetics, life sciences, or a related discipline. • Experience with mammalian cell culture, molecular/cell biological and genetic techniques. • Experience with cell imaging techniques, fluorescence microscopy, quantitative cellular/metabolic assays (e.g. Seahorse flux analysis), CRISPR/Cas9 genome editing, virological techniques and/or (multi)omics analysis is advantageous. • Strong interest in virus-host interactions. • Excellent experimental and analytical skills, organized, flexible, open and critical attitude, multidisciplinary interest. • Motivated, proactive, and able to work independently, in a team and collaboratively within an international, interdisciplinary research network. • Excellent written and spoken English communication skills (official proof of English language proficiency may be required).
Planned Secondments	UAveiro, OMINIUMAI (Portugal), JUW

Fellow	**Recruiting Institution**	**PhD Enrolment**	**Duration**
DC4	JUW	JUW	36 months

Project Title	Systematic investigation of peroxisomal and extra-peroxisomal proteome remodelling during viral infection
Supervisors	Bettina Warscheid (JUW) & Daniela Ribeiro (UAveiro)
DC Profile	We are seeking a highly motivated and scientifically curious PhD candidate with a strong interest in host-virus interactions, organelle biology, and proteome dynamics. Applicants should have practical experience with mammalian cell culture, viral infection experiments, organelle biology, and molecular and cell biology techniques. Previous experience in quantitative proteomics, and/or high-resolution mass spectrometry is advantageous. The candidate should have experience or a strong interest in bioinformatics, computational biology, and quantitative data analysis; familiarity with statistics and programming (R and/or Python) is required. The ability to work independently and collaboratively, together with a commitment to active participation in an international interdisciplinary research network is essential.
Requirements	• Master's degree in Biochemistry, Biology, Molecular Medicine, Biotechnology or a related life science discipline.

	• Excellent written and spoken English communication skills.		
Planned Secondments	UAveiro, AUMC, OMINIUMAI (Portugal)		
Fellow	**Recruiting Institution**	**PhD Enrolment**	**Duration**
DC5	KUL	KUL	36 months
Project Title	Comprehensive mapping of peroxisome metabolism and dynamics during influenza A virus infection		
Supervisors	Lieve Naesens (KUL) & Hans Waterham (AUM)		
DC Profile	We are seeking a curious, highly motivated, and collaborative PhD candidate interested in investigating how influenza virus precisely manipulates peroxisome metabolism throughout its replication cycle; which viral factors have pro- or antiviral effect; and how this insight may be exploited to develop an innovative host-directed anti-influenza therapy. The applicant should have an interest in virus replication strategies, virus-host interactions, innate immunity, and the role of cellular lipid organelles in these processes. Experience in mammalian cell culture, virology, molecular biology, microscopy and cell imaging, or lipidomics/metabolomics is advantageous. The successful candidate should demonstrate strong scientific curiosity, a willingness to learn new experimental approaches, and the ability to work across disciplines.		
Requirements	• Master's degree (with at least distinction) in biology, biomedical sciences, pharmaceutical sciences, biochemistry, molecular biology, microbiology, or related discipline. • Excellent written and spoken English communication skills (official proof of English language proficiency is required unless the applicant holds a diploma from an English-taught programme in Australia, English-speaking Canada, Ireland, New Zealand, the UK, or the USA). • Excellent experimental and analytical skills, organized, flexible, open and critical attitude with a multidisciplinary interest. • Proactive, creative and able to work independently within an interdisciplinary team and international research network.		
Planned Secondments	UoS, AUMC, CelBio		
Fellow	**Recruiting Institution**	**PhD Enrolment**	**Duration**
DC6	KUL	KUL	36 months
Project Title	Viral infection, peroxisomal redox regulation and pexophagy: exploring the missing links		
Supervisors	Marc Fransen (KUL) & Daniela Ribeiro (UAveiro)		
DC Profile	We are seeking a curious, highly motivated, and collaborative PhD candidate interested in investigating how viruses interact with cellular metabolism, redox homeostasis, and innate immunity. The applicant should have an interest in redox biology, virology, and/or host-pathogen interactions, particularly in how metabolic pathways, reactive oxygen species (ROS), and organelle function contribute to antiviral responses. Experience in mammalian cell culture, virology, redox biology, autophagy, molecular biology, fluorescence microscopy, metabolomics, or cellular metabolism is advantageous. The successful candidate should demonstrate strong scientific curiosity, a willingness		

	to learn new experimental approaches, and the ability to work across disciplines.		
Requirements	• Master's degree (with at least distinction) in biology, biomedical sciences, biochemistry, biotechnology, molecular biology, microbiology, bioengineering, or related discipline. • Excellent written and spoken English communication skills (official proof of English language proficiency is required unless the applicant holds a diploma from an English-taught programme in Australia, English-speaking Canada, Ireland, New Zealand, the UK, or the USA).		
Planned Secondments	UAveiro, MS-OMICS (Denmark), AUMC		
Fellow	**Recruiting Institution**	**PhD Enrolment**	**Duration**
DC7	UMR	UMR	36 months
Project Title	Elucidate the involvement of (very) long chain fatty acid metabolism and pexophagy in flavivirus infection		
Supervisors	Eva Hecker (UMR) & Marc Fransen (KUL)		
DC Profile	For this project, we are looking for a curious and self-driven PhD candidate who enjoys working in a team and wants to understand how viruses rewire the lipid metabolism of their host cells. Applicants should bring solid training or genuine curiosity in cell biology, lipid and peroxisomal metabolism, and/or virology, and should look forward to research that spans virology, metabolism, and the biology of host-pathogen interactions. Prior hands-on experience is welcome in areas such as mammalian cell culture, work with viruses, molecular biology, mass spectrometry-based lipidomics, assays for autophagy and organelle turnover, CRISPR/Cas-based gene editing, or stem cell-derived and organoid culture systems. What matters most, however, is the willingness to pick up unfamiliar methods, to think across technical boundaries, and to take an active part in a collaborative, interdisciplinary network.		
Requirements	• MSc-degree or equivalent in virology, biomedical science, biochemistry, cell biology, or related discipline. • Experience with cell biology, molecular biology, biochemistry methods. • Experience with microscopic methods. • Excellent English skills.		
Planned Secondments	KUL, UAMC, MS-OMICS (Denmark)		
Fellow	**Recruiting Institution**	**PhD Enrolment**	**Duration**
DC8	TPI	UoS	36 months
Project Title	Understanding the differential impact of flaviviruses on peroxisome function and their interplay with mitochondria and stress granules		
Supervisors	Nicolas Locker (TPI) & Triana Amen (UoS)		
DC Profile	We are seeking a curious, motivated and collaborative PhD candidate with a strong interest in virus-host interactions, cell biology and cellular metabolism. The project will identify how flavivirus regulate peroxisome function and dynamics and determine how these essential organelles contribute to coordinating viral infection and host antiviral responses through rewiring host metabolites. The candidate will work at the interface of virology, peroxisome biology, chemical biology, and		

	cell metabolism, using approaches such as mammalian cell culture, viral infection assays, molecular and biochemical techniques, quantitative image analysis, and advanced fluorescence and lipidomics. Previous hands-on experience with mammalian cell culture is strongly preferred; imaging or virological techniques experience is desirable. The successful candidate should be enthusiastic about both applying novel methodologies, analyzing complex datasets and contributing actively to research communication.		
Requirements	• Applicants must have, or anticipate obtaining, an undergraduate degree in a relevant biological subject, at least 2:1 or equivalent, and/or have a Master's degree in a relevant subject. • Applicants without English as a first language must provide evidence that they meet the English language requirement, e.g., with an average IELTS score of at least 7.0 overall (or equivalent). • Experience with mammalian cell culture and molecular, cell biological, biochemical, and molecular genetics techniques. • Experience with fluorescence microscopy, small-molecule or phenotypic screening, and virological techniques. • Excellent experimental and analytical skills; an organized, flexible and critical approach; ability to work independently and collaboratively.		
Planned Secondments	UoS, UMR		
Fellow	**Recruiting Institution**	**PhD Enrolment**	**Duration**
DC9	UoS	UoS	36 months
Project Title	Investigating the effects of small molecule regulators of peroxisome function and dynamics on viral infections		
Supervisors	Triana Amen (UoS) & Lieve Naesens (KUL)		
DC Profile	We are seeking a proactive, highly motivated, and collaborative PhD candidate with a strong interest in virus-host interactions, cell biology and cellular metabolism. The project will identify small molecules that regulate peroxisome function and dynamics and determine how these compounds influence viral infection and host antiviral responses. The candidate will work at the interface of virology, peroxisome biology, chemical biology, and cell metabolism, using approaches such as mammalian cell culture, viral infection assays, small-molecule screening, molecular and biochemical techniques, quantitative image analysis, and advanced fluorescence and live-cell imaging. Previous hands-on experience with mammalian cell culture is strongly preferred, imaging or virological techniques experience is advantageous. The successful candidate should be enthusiastic about learning unfamiliar methods, analyzing complex datasets, and contributing actively to a collaborative, international, and interdisciplinary research network.		
Requirements	• Master's degree or equivalent in biomedical sciences, molecular or cell biology, biochemistry, virology, chemical biology or a related discipline. • Experience with mammalian cell culture and molecular, cell biological, biochemical and molecular genetics techniques.		

	• Experience with fluorescence or live-cell microscopy, quantitative image analysis, small-molecule or phenotypic screening, and virological techniques. • Excellent experimental and analytical skills; an organized, flexible and critical approach; the ability to work independently and collaboratively. • Excellent written and spoken English communication skills. Official proof of English-language proficiency is required.		
Planned Secondments	KUL, The Hospital of Sick Children (Canada)		
Fellow	**Recruiting Institution**	**PhD Enrolment**	**Duration**
DC10	AUMC	VUA	36 months
Project Title	Validating the roles of peroxisomes in viral infection in human iPSCs and iPSC-derived lung and liver-like models		
Supervisors	Vivi Heine (AUMC) & Nicolas Locker (TPI)		
DC Profile	We are looking for a curious, highly motivated and collaborative PhD candidate with a strong interest in human-induced pluripotent stem cell (iPSC) biology and advanced human cell models. The project will develop human iPSC-derived models to investigate how viral infections interact with peroxisomal metabolism and dynamics. The candidate will work at the interface of human stem cell biology, cell biology, and virology, using approaches including iPSC culture and differentiation, molecular and cell biological assays, imaging, and CRISPR/Cas9-based genome editing. Previous hands-on experience with human iPSC culture and/or differentiation is strongly preferred. Experience with advanced human cell models, genome editing or related stem-cell technologies would be advantageous. The project also offers training in viral infection models and organ-on-chip technology through international secondments. We particularly value scientific curiosity, careful experimental work, willingness to learn new techniques, and enthusiasm for interdisciplinary collaboration.		
Requirements	• Master's degree or equivalent in biomedical sciences, molecular/cell biology, biotechnology, developmental biology, neuroscience, life sciences, or a related discipline. • Hands-on experience with human iPSC culture and/or differentiation is strongly preferred. • Experience with mammalian cell culture and molecular/cell biological techniques. • Experience with fluorescence microscopy and/or quantitative cellular assays is advantageous. • Experience with CRISPR/Cas9 genome editing, organoids/advanced human cell models or virology is advantageous. • Strong interest in human iPSC-based modelling and virus–host interactions. • Excellent written and spoken English communication skills. • Ability to work both independently and collaboratively within an international, interdisciplinary research network.		
Planned Secondments	AUMC, TPI, BEONCHIP (Spain)		
Fellow	**Recruiting Institution**	**PhD Enrolment**	**Duration**

DC11	CelBio	UAveiro	36 months
Project Title	Validation of peroxisomal functions during viral infections in organotypic 3D in vitro models		
Supervisors	Vitor Gaspar (CelBio) & Vivi Heine (AUMC)		
DC Profile	We are seeking a curious, motivated and collaborative PhD candidate with a strong interest in 3D in vitro models bioengineering (spheroids or organoids), cell culture, biomaterials and virus-cell interactions. The project will involve the bioengineering of lung 3D in vitro models in tissue-specific matrices to generate living units for screening peroxisomal function during viral infections, using approaches for 3D cell culture and cell-laden hydrogels biofabrication. Previous hands-on experience with mammalian cell culture in 3D dimensions or bioengineering of cell-biomaterials interfaces is strongly preferred; experience in bioimaging will be valued. The successful candidate should be enthusiastic about both applying and applying novel methodologies, analyzing complex datasets and contributing actively to research communication.		
Requirements	• Master's degree or equivalent in biotechnology, biomedical sciences, molecular/cell biology, biotechnology, developmental biology, or a related discipline. • Hands-on experience with 3D cell culture differentiation is strongly preferred. • Experience with mammalian cell culture and molecular/cell biological techniques. • Experience with biomaterials and hydrogels manufacturing. • Strong interest in 3D in vitro models bioengineering and virus–host interactions. • Excellent written and spoken English communication skills. • Ability to work both independently and collaboratively within an international, interdisciplinary research network.		
Planned Secondments	AUMC, UAveiro		
Fellow	**Recruiting Institution**	**PhD Enrolment**	**Duration**
DC12	KUL	KUL	36 months
Project Title	Unveiling the connection between peroxisome dynamics and viral infection		
Supervisors	Marc Fransen (KUL) & Michael Schrader (UNEXE)		
DC Profile	We are seeking a curious, highly motivated, and collaborative researcher interested in understanding how cellular organelles interact with viral pathogens. The ideal candidate has a strong background or interest in cell biology, organelle biology, and/or virology, with enthusiasm for interdisciplinary research at the intersection of virology, cell biology, and host-pathogen interactions. Experience with mammalian cell culture, virology, fluorescence microscopy, molecular biology, organelle biology, protein–protein interaction assays, CRISPR/Cas-based approaches, or 3D cell culture is advantageous. Above all, the candidate should be eager to learn new experimental techniques, embrace diverse approaches, and contribute to collaborative research across disciplines.		
Requirements	• Master's degree (with at least distinction) in biology, biomedical sciences, biochemistry, biotechnology, molecular biology, microbiology, bioengineering, or related discipline.		

	• Excellent written and spoken English communication skills (official proof of English language proficiency is required unless the applicant holds a diploma from an English-taught programme in Australia, English-speaking Canada, Ireland, New Zealand, the UK, or the USA).		
Planned Secondments	The University of Exeter (UK), The Hospital of Sick Children (Canada), CelBio		
Fellow	**Recruiting Institution**	**PhD Enrolment**	**Duration**
DC13	UAveiro	UAveiro	36 months
Project Title	Unravelling the role of the interplay between peroxisomes and the ER during viral infections		
Supervisors	Daniela Ribeiro (UAveiro) & Michael Schrader (UNEXE)		
DC Profile	For this position, we are looking for a proactive, highly motivated and collaborative PhD candidate with a strong interest in virus-host interactions and cell biology. The project will investigate how the interplay between peroxisomes and the endoplasmic reticulum influence viral infections and peroxisome-dependent antiviral responses by characterizing and manipulating organelle crosstalk during infection. The candidate will work at the interface of virology, cell biology and metabolism, using approaches including mammalian cell culture, viral infection and response assays, and molecular, cell biological and biochemical techniques. Previous hands-on experience with virological techniques and/or mammalian cell culture is strongly preferred. The project also includes training in AI-assisted omics analysis and antiviral testing through international secondments.		
Requirements	• Master's degree (or legally equivalent) in Biomedical Sciences, Medicine, Biology, Molecular and Cell Biology, Biochemistry, Biological Engineering, Biomedical Engineering, Genetics. • Experience with mammalian cell culture, molecular/cell biological/genetic techniques. • Experience with fluorescence microscopy, virological techniques and/or (multi)omics analysis is advantageous. • Strong interest in virus-host interactions and cell biology. • Excellent experimental and analytical skills, organized, flexible, open and critical attitude, multidisciplinary interest. • Motivated, proactive, and able to work independently, in a team and collaboratively within an international, interdisciplinary research network. • Excellent written and spoken English communication skills (official proof of English language proficiency is required).		
Planned Secondments	The University of Unexer (UK), LUMC, ATTOMARKER (UK)		
Fellow	**Recruiting Institution**	**PhD Enrolment**	**Duration**
DC14	UMR	UMR	36 months
Project Title	Unravelling the interplay between peroxisomes and lipid droplets in the context of flavivirus infection		
Supervisors	Eva Herker (UMR) & Sebenzile Myeni (LUMC)		
DC Profile	This position is aimed at an inquisitive, strongly motivated and team-oriented PhD candidate who is fascinated by the question of how organelles talk to one another, and how viruses exploit that		

	communication. We expect a sound background or a clear interest in cell biology, organelle and membrane contact site biology, and/or virology, together with real enthusiasm for working at the meeting point of virology, cell biology, and host-pathogen interactions. Previous experience would be a plus in fields such as mammalian cell culture, work with viruses, live-cell and quantitative fluorescence microscopy, molecular biology, protein-protein interaction and proximity labelling assays, CRISPR/Cas-based gene editing, or 3D cell culture. Beyond any particular skill set, we value the readiness to learn new techniques, to combine complementary approaches, and to contribute actively to joint work across disciplines.		
Requirements	• MSc-degree or equivalent in virology, biomedical science, biochemistry, cell biology, or related discipline. • Experience with cell biology, molecular biology, biochemistry methods. • Experience with microscopic methods. • Excellent English skills.		
Planned Secondments	UAveiro, LUMC, CelBio		
Fellow	**Recruiting Institution**	**PhD Enrolment**	**Duration**
DC15	LUMC	LUMC	36 months
Project Title	Unravelling the interplay between peroxisomes and viral replication organelles (VROs)		
Supervisors	Sebenzile Myeni & Montserrat Bárcena (LUMC) & Hans Waterham (AUMC)		
DC Profile	For this position, we are looking for a motivated and collaborative PhD candidate with an interest in virus-host interactions and the cell biology of infection. The project will investigate how viruses recruit peroxisomes to virus-induced replication organelles, and what this interplay means for peroxisomal function and for viral replication. The candidate will work with coronaviruses in human cell models, combining cell culture and infection assays with advanced imaging and biochemical approaches. Previous hands-on experience with mammalian cell culture and microscopy is strongly preferred. The project includes international secondments with training in peroxisome-deficient cell models, single-cell lipidomics and viral diagnostics.		
Requirements	• A completed Master's degree/equivalent in Virology, Biomedical Sciences, Molecular Biology, Cell Biology, Infection Biology or a related discipline. • A strong interest in host-pathogen interactions. • Excellent communication skills in English. • Experience with cell culture and molecular biology techniques. • Experience with microscopy techniques.		
Planned Secondments	AUMC, King's College London /UK), ATTOMARKER (UK)		

6. How to apply

Applications are online and must be submitted in English. Each VirION Recruiting Institution conducts and manages locally the recruitment process for the DC vacancy(ies) it is offering. The

applicants must follow the recruitment procedure set out for the DC vacancy(ies) she/he is applying to and refer to the EURAXESS announcement(s) of said vacancy(ies).

Though handled locally, the following application documents are common to all DC vacancies and mandatory to apply to any of them:

1) Required Common Documents:

- Identification document (passport or European ID card)
- Detailed academic CV in EUROPASS format
- Motivation letter (max. 1 page) + 2 reference letters (max. 2 pages each) endorsing the application.
- Digital copy of the Diplomas + the official English transcript of the academic degrees and academic records. (In the case an applicant doesn't hold the official transcript at the moment of application, he/she can submit a regular transcript signed by him/her, and present the official transcript for hiring and PhD enrolment, in the case the applicant is selected for the DC vacancy).
- Official Certificate of English Proficiency [e.g., IELTS (at least average score of 7.0 overall), TOEFL (iBT of at least 91-99 on the old scale, or 5.0 on the new scale)]. This requirement does not apply to applicants who hold a diploma from an English-taught programme in Australia, English-speaking Canada, Ireland, New Zealand, the UK, or the USA).

2) Additional Documents:

- The Recruiting Institutions may require additional application documents. Please check the EURAXESS announcement(s) of the DC vacancy(ies) you are applying to.

7. Selection of DC candidates

Eligibility check: Each application will be checked to assess whether it complies with all the Eligibility Criteria and is accompanied by all the required documents. Applications that do not meet the eligibility criteria and/or fail to submit a required document will be dismissed from the selection process.

The *evaluation process* for a DC vacancy is conducted by a Local Recruitment Committee. The Local Recruitment Committees are composed by at least 3 and at most 5 persons: The Supervisors of the DC vacancy, and a representative of an institution that will host a secondment for the DC vacancy.
The *evaluation* comprises three steps: Shortlisting, Interview and Final Selection. In each step, the applications are going to be scored on a scale of 0 to 20 points.

a) Shortlisting: The eligible applications for a DC vacancy will be assessed according to the following criteria and weights:
   - Professional / scientific experience (80%)
   - Motivation letter and reference letters (20%)

   The top five (at least) shortlisted applicants that score at least 16 points in the shortlisting will be invited for the interview.

b) Interview:
   - An online interview session of about 20 minutes will be scheduled per application.
   - The interview will be in English.
   - Performance in the interview will be assessed with a focus on the following indicators: relevance and quality of the research experience, background knowledge/experience related to the research goals of the VirION network in general and the DC vacancy in particular, motivation and suitability for PhD, full-time availability for a PhD in a foreign country and for secondments abroad, communication skills.

c) Final selection: The final score of an application will be calculated according to the following criteria and weights:
   - Professional / scientific experience (40%)
   - Motivation letter + reference letters (10%)
   - Interview (50%)

   The applicants with a final score of at least 16 points are eligible for hiring and will be ranked from the highest to the lowest score. The application selected for a given DC vacancy will be the one with the highest score. If this applicant is not available, the second-ranked application will be offered the position, and so on.

Notification and offer:
The applicant selected for a given DC vacancy will be invited aboard.
Each Recruiting Institution might request different documents to proceed with hiring the selected applicant (such as a work visa, proof of equivalence of academic degree in the recruiting country, for instance), depending on its local and / or national rules. The hiring process is dealt with locally at the Recruiting Institution.
The applicants that underwent interview but were not selected for a given DC vacancy will be notified accordingly. Of those, the ones with a final score of at least 16 points are going to compose a reserve list and, if necessary, may be contacted in the future.

8. Benefits

The hired researcher will be supported with a fellowship according to the MSCA-DN allowances:
- Living allowance of €4010/month corrected with the country factor of the Recruiting Institution
- Mobility allowance: of €710/month
- Family allowance of €660/month (if applicable)
- Special needs allowance (if applicable)

National and institutional taxes and social contributions apply to all DC fellowships and will be deducted from the allowances.

9. Recruitment Timeline

Each Recruiting Institution sets out the recruitment calendar for the DC vacancy(ies) it is offering.

Stage	Deadline
Call opening	November 16th, 2026
Deadline for applications	December 16th, 2026 (23:59 CET)
Start of employment	From February to June 2027

10. Empty DC vacancy

In the event a DC vacancy remains empty either for unavailability of all the selected applicants, or for absence of eligible applicants, the Local Recruiting Committees may resource to the reserve list to recruit a researcher to a DC vacancy.