

# acinetwork

AGAINST MULTI-DRUG RESISTANT ACINETOBACTER BAUMANNII



## 3 DC positions within the programme

### Horizon Europe (HORIZON)

#### *Marie Skłodowska-Curie Actions*

#### *Doctoral Networks (DN)*

#### *“Acinetwork”*

### **“A Training Network for the Design of Synthetic Carbohydrate-Based Vaccines in the Fight against Multi-Drug Resistant Nosocomial Pathogen *Acinetobacter baumannii*”**

**(HORIZON-MSCA-2022-DN, project number 101119795 —Acinetwork)**

#### **GENERAL INFORMATION**

ACINETWORK is a European Training Network funded in the framework of HORIZON Marie Skłodowska-Curie Doctoral Networks (DN). ACINETWORK is a multidisciplinary network that aims to educate the next generation of young scientists capable of rationally designing innovative glycoconjugate vaccines to improve current preventive therapies and tackle unmet medical needs in the fight against nosocomial diseases. The main goal of ACINETWORK is to forge young professionals within an integrated research training programme in academia and industrial environments on the design and development of novel glycoconjugate vaccine candidates as treatment against severe and life-threatening infections caused by the multidrug-resistant bacterium *Acinetobacter baumannii*, a major cause of nosocomial diseases. ACINETWORK will pursue this ambitious goal through a collaborative effort involving 7 academic groups, and 1 industrial partner as Beneficiaries, along with 8 Associated Partners. The combination of the beneficiaries' expertise in carbohydrate synthesis, conjugation techniques, nanotechnology, molecular glycobiology, cell biology, immunology and vaccinology, along with a wide experience in business and technological transfer, will create a multidisciplinary environment in which 10 Doctoral Candidates (DCs) can nourish their skills and the most innovative ideas in the growing fields of glycoscience and vaccinology, and simultaneously acquire transferable know-how that will enable them to become the

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new leaders of academic or industrial research. In parallel, ACINETWORK will improve the European competitiveness and innovation capacity by bringing to market and policy stakeholders new glycoscience concepts in the development of novel therapeutic options to tackle unmet medical needs and major global healthcare challenges. For more information on ACINETWORK visit [www.acinetwork.eu](http://www.acinetwork.eu).

## ACINETWORK CONSORTIUM

### Beneficiaries

The following institutions will directly recruit the DCs:

- Università degli Studi di Milano (UMIL), Department of Chemistry, Milan, Italy – Coordinator (Scientist-in-Charge: Prof. Luigi Lay)
- Università degli Studi di Firenze (UNIFI), Department of Chemistry, Florence, Italy – (Scientist-in-Charge: Prof. Barbara Richichi)
- Max Planck Institute of Colloids and Interfaces (MPG), Department of Biomolecular Systems, Potsdam, Germany – (Scientist-in-Charge: Prof. Peter H. Seeberger)
- Glycouniverse GMBH (GU), Potsdam, Germany – (Scientist-in-Charge: Dr. Kim Le Mai Hoang)
- Asociacion Centro de Investigacion Cooperativa en Biomateriales- CICbiomaGUNE (CIC), San Sebastian, Spain – (Scientist-in-Charge: Dr. Sergio E. Moya)
- Aarhus University (AU), Department of Biomedicine, Aarhus, Denmark – (Scientists-in-Charge: Prof. Fulvio M. Reggiori and Prof. Thomas Vorup-Jensen)
- Institut National de la Santé et de la Recherche Médicale (INSERM), Montpellier, France – (Scientist-in-Charge: Dr. Andrei Turtoi)
- Instituto de Salud CARLOS III (ISCIII), Madrid, Spain – (Scientist-in-Charge: Dr Antonio J. M. Galiano)

### Associated Partners

The following Institutions and companies are part of the consortium and will contribute to training activities, including secondments:

- Associazione Hand In Hand (HIH), Nemi, Italy
- Attana AB (ATTANA), Stockholm, Sweden
- Idea75 (IDEA), Bari, Italy

- Fratagene Therapeutics (FRATERA), Rome, Italy
- Universidad del Pais Vasco (UPV), Leioa, Spain
- Consiglio Nazionale delle Ricerche (CNR), SCITEC Institute, Milan, Italy
- Freie Universitaet Berlin (FUB), Berlin, Germany
- Universidad de Educación a Distancia (UNED), Madrid, Spain
- University of Montpellier (UM), Montpellier, France

## RESEARCH PROJECTS

The ACINETWORK research activity will be implemented with the following **3 individual doctoral projects**:

**DC1:** Synthesis of ATCC 17978 and ATCC 17961 *Acinetobacter baumannii* polysaccharide fragments (University of Milan, Milan, ITALY)

**DC2:** Synthesis of LAC-4 *Acinetobacter baumannii* polysaccharide fragments (University of Milan, Milan, ITALY)

**DC3:** Conjugation of *Acinetobacter baumannii* polysaccharide fragments to immunogenic carrier proteins and inorganic nanoparticles (University of Florence, Florence, ITALY)

**DC4:** Synthesis of oligosaccharide fragments of *Acinetobacter baumannii* ATCC 19606 lipopolysaccharide (Max Planck Institute for Colloids and Interfaces, Potsdam, GERMANY)

**DC5:** Automated synthesis of selected *Acinetobacter baumannii* polysaccharide fragments (GlycoUniverse, Potsdam, GERMANY)

**DC6:** Synthesis of glycosylated supramolecular nanoparticles and study of their biological fate and bio-interactions with serum proteins (Asociacion Centro de Investigacion Cooperativa en Biomateriales- CICbiomaGUNE, San Sebastian, SPAIN)

**DC7:** Immuno-toxicological studies of the glycosylated nanomaterials (Aarhus University, Aarhus, DENMARK)

**DC8:** Study of intracellular trafficking, biodegradation and immune response of the glycoconjugate vaccines (Aarhus University, Aarhus, DENMARK)

**DC9:** Monoclonal antibodies against immunogenic *Acinetobacter baumannii* glycoepitopes (Institut National de la Santé et de la Recherche Médicale, Montpellier, FRANCE)

**DC10:** Immunological characterisation of the glycoconjugate vaccines (Instituto de Salud CARLOS III, Madrid, SPAIN)

Additional details on the individual research projects can be found at [www.acinetwork.eu](http://www.acinetwork.eu)

Each of the 10 DCs will be enrolled in the PhD programme of the Beneficiary's organization in one of the following Doctorate courses/schools and research groups (the beneficiaries which do not award PhD will establish agreements with local and international universities that can provide the degree).

Beneficiary	DC	PhD-delivering institution	Doctorate Course/School	URL
Università degli Studi di Milano (UMIL)	DC1 DC2	University of Milan	Doctoral Course in Chemistry	<a href="https://www.chimica.unimi.it/ecm/home/didattica/dottorati/dottorato-in-chimica">https://www.chimica.unimi.it/ecm/home/didattica/dottorati/dottorato-in-chimica</a>
Università degli Studi di Firenze (UNIFI)	DC3	University of Firenze	Doctoral Course in Chemical Sciences	<a href="https://www.dottoratoscienzechimiche.unifi.it/">https://www.dottoratoscienzechimiche.unifi.it/</a>
Max-Planck Gesellschaft zur Förderung der Wissenschaften (MPG)	DC4	International Max Planck Research Schools (IMPRS)	Doctoral Course in Multiscale Bio-Systems	<a href="https://www.mpikg.mpg.de/imprs">https://www.mpikg.mpg.de/imprs</a>
GlycoUniverse (GU)	DC5	Freie Universität Berlin	Dr. rer. Nat in Chemistry	<a href="https://www.bcp.fu-berlin.de/en/graduierzentrum/promotionsinteressen/dr-rer-nat-oder-phd/index.html">https://www.bcp.fu-berlin.de/en/graduierzentrum/promotionsinteressen/dr-rer-nat-oder-phd/index.html</a>
CIC biomaGUNE (CIC)	DC6	University of Basque Country	Doctoral Course in Applied Chemistry and Polymeric Materials	<a href="https://www.ehu.eus/en/web/doktoregoa/doctorate-applied-chemistry-polymeric-materials">https://www.ehu.eus/en/web/doktoregoa/doctorate-applied-chemistry-polymeric-materials</a>
Aarhus Universitet (AU)	DC7 DC8	Aarhus University	Graduate School of Health	<a href="https://phd.health.au.dk/">https://phd.health.au.dk/</a>
Institut National de la Santé et de la Recherche Médicale (INSERM)	DC9	University of Montpellier	Doctoral School in Chemical and Biological Sciences for Health	<a href="https://edcbs2.umontpellier.fr/index.html?language=en&amp;page=home">https://edcbs2.umontpellier.fr/index.html?language=en&amp;page=home</a>
Instituto de Salud Carlos III (ISCIII)	DC10	Instituto Mixto de Investigación Escuela Nacional de Sanidad (IMIENS)	Doctoral Course in Biomedical Sciences	<a href="https://www.imiens.es/noticia.php?id=35&amp;titulo=&amp;lang=en">https://www.imiens.es/noticia.php?id=35&amp;titulo=&amp;lang=en</a>

The 10 DCs will participate in the network's training activities and work placements at the laboratories of the participating academic and industrial partners. In addition, the training programme of the recruited DCs will be supplemented by regular meetings and workshops within the ACINETWORK Doctoral Network.

## TRAINING PROGRAMME

ACINETWORK will provide an international, cross-sectoral and interdisciplinary educational program. According to the EU Principles for Innovative Doctoral Training, it will allow the DCs to obtain skills and knowledge necessary for a career development both in academia and/or private sector.

All the recruited DCs will be involved in a highly stimulating training programme, both at the local and at the network-wide level, which includes:

- 1) The implementation of the individual research projects (aligned with local PhD training programmes) that include strong collaborations with other ACINETWORK Beneficiaries.
- 2) Each researcher will be involved in local training sessions.
- 3) Joint scientific courses and workshops will be organised by the ACINETWORK consortium. An intensive and original training programme will be provided to all DCs, including multidisciplinary training events and transferable skills courses ranging from project management and responsibility in research (including ethics and regulations), to IPR/valorisation and dissemination of science.
- 4) Secondments in labs with complementary and scientific integrated areas at one of the Beneficiaries and/or Associated Partners, to complement the training through research methods offered at the home institution.
- 5) The ACINETWORK consortium will encourage the researchers to attend international conferences in the glycoscience field.
- 6) Visits at industrial sites or research centers will be performed in conjunction with the network meetings to put the students in direct contact with top levels scientific laboratories or manufacturing sites.

## RECRUITMENT

Recruited DCs will receive a 36-months grant to cover living, travel and installation (mobility) allowance, and family allowance (if applicable), as reported in the following table. The reported amount is referred to gross salary (€/month) before tax. Please note that taxation may vary according to country.

Doctoral Candidate	Recruiting institution	Living allowance <sup>a</sup>	Mobility allowance	Family allowance <sup>b</sup>	Total maximum GROSS amount from REA (36 months) <sup>c</sup>
DC1	UMIL	3311,60	600,00	660,00	164577,60
DC2	UMIL	3311,60	600,00	660,00	164577,60
DC3	UNIFI	3311,60	600,00	660,00	164577,60
DC4	MPG	3342,20	600,00	660,00	165679,20
DC5	GU	3342,20	600,00	660,00	165679,20
DC6	CIC	3104,20	600,00	660,00	157111,20
DC7	AU	4488,00	600,00	660,00	206928,00
DC8	AU	4488,00	600,00	660,00	206928,00
DC9	INSERM	3957,60	600,00	660,00	187833,60
DC10	ISCI	3104,20	600,00	660,00	157111,20

<sup>a</sup> The amount is dependent on a country correction coefficient which takes into account the cost of living in the country of the recruiting institution.

<sup>b</sup> Only applicable to the DCs having or acquiring family obligations (i.e. persons linked to them by (i) marriage, or (ii) a relationship with equivalent status to a marriage recognized by the legislation of the country or region where this relationship was formalized; or (iii) dependent children who are being maintained by them) during the action duration.

<sup>c</sup> These are the maximum GROSS amounts paid by the European Research Executive Agency (REA). Net salaries will depend on the national taxation applied by the recruiting institution's country and on possible extra-benefits granted by the employing institution.

All DCs will be provided with office space and all facilities for their research project.

## ELIGIBILITY RULES

The DC positions are open to candidates of any nationality, provided they fulfil the **strict eligibility requirements** established for the enrollment through the Marie Skłodowska-Curie Action-Doctoral Network. Each DC will be employed according to the financial and eligibility rules reported in the EU document accessible to the following link: [https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-2-msca-actions\\_horizon-2021-2022\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-2-msca-actions_horizon-2021-2022_en.pdf).

In particular, **at the time of recruitment** applicants must fulfil the following rules:

### Experience

Eligible applicants must be doctoral candidates, *i.e.* not already in possession of a doctoral degree. Researchers who have successfully defended their doctoral thesis but who have not yet formally been awarded the doctoral degree will not be considered eligible.

Doctoral candidates must be enrolled in a doctoral programme leading to the award of a doctoral degree in at least one EU Member State or Horizon Europe Associated Country.

### Mobility

Eligible applicants must not have resided in the country where the research training activities will take place for more than 12 months in the 3 years immediately prior to the recruitment date (and not have carried out their main activity (work, studies, etc.) in that country).

### **Additional eligibility criteria required by the ACINETWORK consortium**

Admission to the programme is open to applicants who hold a 2nd Level Master's Degree (120 ECTS + 180 ECTS in a bachelor's degree) or a Single Cycle Degree (minimum 300 ECTS), or a comparable university degree (Second Cycle qualification), as required by the partner universities for admission to doctoral studies.

Equal opportunities policy without distinction on the grounds of gender, racial or ethnic origin, religion or belief, disability, age or sexual orientation will be applied.

## APPLICATION PROCEDURE

Application is open for **DC2**, **DC4** and **DC9** positions. Applicants can apply for up to 3 projects within the consortium, indicating the order of preference. All applications will be checked for eligibility. Ineligible or incomplete applications will not be considered. Applications must be in English.

All applications shall be conveyed exclusively through the ACINETWORK website at [www.acinetwork.eu](http://www.acinetwork.eu) starting **from March 11, 2023, and no later than April 11, 2024, at h 17:00 CET**. In particular, the following **mandatory documents** shall be included in the application **by uploading them as PDF files along with the application form**:

- 1) an updated CV (EU pass format: <https://europa.eu/europass/it/create-europass-cv>) including the details of education/qualifications, work experience, language skills, list of publications, participation in funded research project and other relevant skills;
- 2) copy of a valid ID/Passport;
- 3) a letter giving reason for his/her motivation for the post (max 1 page, [Form 1](#));
- 4) **two recommendation letters** (prepared using the template contained in [Form 2](#)) must be sent directly by the referees to [acinetwork@acinetwork.eu](mailto:acinetwork@acinetwork.eu);



- 5) the certified copy of the Academic degree **translated into English** (usually the Master Degree) which would formally entitle him/her to embark on a doctorate, either in the country in which the degree was obtained or in the country in which the researcher will be recruited. In case the degree has not been obtained yet, it is necessary to send a declaration of the university stating that the degree will be obtained by **31/12/2024**;
- 6) the Academic Transcript of Records;
- 7) letter of research statement, describing the applicant's research experience in relation with the project/s s/he is applying for (max 1500 words, Form 3). The letter shall report a description of the applicant's master research project and a self-evaluation on scientific and soft skills.

## ASSESSMENT CRITERIA

Selection of the DCs will be solely based on merits providing equal opportunity and in agreement with the European Code of Conduct for the Recruitment of Researchers (<https://euraxess.ec.europa.eu/>).

Applications will be evaluated against the following criteria:

- educational record;
- scientific quality of the applicant's CV;
- expected individual impact and benefit to the fellow and to the project;
- ability to collaborate and communicate;
- previous experience in the subject of ACINETWORK research programme.

The selection process will take place in two steps. The first step will be based on the assessment of the documents submitted with the application. Then shortlisted candidates will be invited for an interview with supervisor/co-supervisor from the network (online). Good level of English proficiency (understood, spoken and written) will be considered. Candidates will be notified of the outcome.

For further information, please contact:

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