

La Universidad de Valladolid a través del Grupo de Superficie Ocular del IOBA y del Grupo de Procesos a Alta Presión del departamento de Ingeniería Química y Tecnología del Medio Ambiente, forma parte del proyecto "Integrated Training in Dry Eye Disease Drug Development (IT-DED3). Este proyecto está financiado mediante el programa Marie Sklodowska-Curie de la Unión Europea, tendrá una duración de cuatro años en total (hasta el año 2022), y participan Universidades y centros de investigación de Portugal, Bélgica, Alemania, Francia, Finlandia y Letonia.

La finalidad de este proyecto es la de formar a jóvenes investigadores de diferentes áreas de conocimiento en el proceso de diseño y análisis de terapias para las enfermedades inflamatorias de la superficie ocular (especialmente el síndrome de ojo seco).

Más información del proyecto en la página web <u>www.itded3.eu</u>.

IT-DED<sup>3</sup> ofrece **12 puestos de trabajo en Europa**, y está buscando candidatos motivados con conocimientos y entusiasmo suficientes para ayudar a este consorcio a progresar en el tratamiento del síndrome de ojo seco. Los candidatos formarán parte de los programas de doctorado de las Universidades de acogida y se les contratará durante 36 meses. Ya está abierto el plazo para presentar las candidaturas **hasta el 2 de marzo**. Para enviar solicitudes en <u>https://www.uantwerpen.be/en/projects/dry-eye-disease-drug-development/job-openings/</u>

The University of Valladolid, through the Ocular Surface Group from the Institute for Applied Ophthalmobiology (IOBA) and the High Pressure Process Group (HPP-UVa) from the department of Chemical Engineering and Environment technology, participate in the project entitled "Integrated Training in Dry Eye Disease Drug Development (IT-DED3).

IT-DED3 is an European Marie Curie Initial Training Network (ITN) consisting of 7 beneficiaries and 10 partner organisations that are committed to join forces and combine their expertise to deliver multidisciplinary and entrepreneurial researchers trained to develop new therapies for patients suffering from Dry Eye Diseases (DED). More information at <u>www.itded3.eu</u>.

IT-DED<sup>3</sup> offers **12 Early Stage Researcher positions** (PhD students) across Europe to conduct research on new therapies for Dry Eye Diseases. IT-DED3 is looking for talented and motivated candidates with the skills, knowledge and enthusiasm to help the network make significant research breakthroughs. ESRs will enrol on PhD degree programmes and be employed for 36 months.

Candidates are invited to submit their application through the <u>application form</u> (https://www.uantwerpen.be/en/projects/dry-eye-disease-drug-development/job-openings/) **before March 2, 2018**.

## Integrated Training in Dry Eye Disease Drug Development (IT-DED<sup>3</sup>)

This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 765608



# PhD student - Early Stage Researcher (ESR4) Evaluation of the topic use of natural compounds for the treatment of ocular surface inflammatory diseases

### About IT-DED<sup>3</sup>

The European Network for Integrated Training in Dry Eye Disease Drug Development (<u>IT-DED<sup>3</sup></u>) aims to deliver multidisciplinary and entrepreneurial researchers trained to develop new therapies for patients suffering from Dry Eye Diseases (DED). DED is a chronic, multifactorial disease of the ocular surface and is a major and increasing healthcare problem due to its high prevalence and economic burden because of the ageing population and frequent computer/tablet/smartphone usage.

Both the research and training programme of <u>IT-DED<sup>3</sup></u> will deliver researchers with an enhanced career perspective and employability, who know how to use their entrepreneurial skills to move drug development projects in DED and other fields to the next technology readiness level.

### About the host organisation

This section will be filled by the project manager based on the IT-DED<sup>3</sup> proposal.

### **Tasks description**

In vitro data suggest that natural derived polyphenols (flavonoids and stilbenes, such as quercetin and resveratrol) can potentially be used as treatment of diseases of the ocular surface.

The aim of this research line is to determine the potential effect of different natural compounds (derived from grapes or from olives residues) on the maintenance of ocular surface health in inflammatory diseases such as dry eye and ocular allergy. Additionally, this research line includes the study of different formulation processes for the adequate delivery of these compounds on the ocular surface. All of this is carried through in vitro assays with primary cultures or established cell lines and experimental models.

Research will cover multidisciplinary experiments including:

- natural polyphenols extraction and isolation
- polyphenol formulation to achieve adequeate biodisponibility for topical application.
- biological evaluation with ocular cell lines models (antioxidant and antiinflammatory actions)
- in vivo evaluation of final formulation/s in an animal dry eye model.
- ✓ We look for a highly motivated researcher to work in a multidisciplinary environment, covering from compound isolation to final topical application studies in an animal model.
- ESR scientific profile sought for this position includes a researcher with a strong Biochemical, Biotechnology, or Biochemical engineering background/orientation.

It will be positively valued that ESR has previous knowledge/experience in any of the following points:

- Cell culture and molecular biology techniques
- Separation processes (extraction, precipitation, ...)
- Chemical analytical techniques

Expected/Tentative incorporation date : September 2018

### **Profile and requirements**

- $\checkmark$  Applicants can be of any nationality.
- ✓ Applicants must hold a MSc or equivalent in the field of (bio) chemical sciences, biotechnology, (bio) chemical engineering, pharmaceutical sciences or an equivalent.
- ✓ Applicants must have an ability to understand and express themselves in both written and spoken English to a level that is sufficiently high for them to derive the full benefit from the network training.
- ✓ Applicants must be eligible to enrol on a PhD programme at the host institution (or at a designated university in case the host institution is a non-academic organisation).
- ✓ Applicants must have the necessary academic skills and background to make the success of a doctoral degree.
- ✓ H2020 MSCA Mobility Rule: researchers must not have resided or carried out their main activity (work, studies, etc.) in the country of the host organisation for more than 12 months in the 3 years 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 are not taken into account.
- ✓ H2020 MSCA eligibility criteria: Early Stage Researchers (ESRs) must, at the date of recruitment by the host organisation, be in the first four years (full-time equivalent research experience) of their research careers and have not been awarded a doctoral degree. Full-Time Equivalent Research Experience is measured from the date when the researcher obtained the degree entitling 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 is recruited, even if a doctorate was never started or envisaged).

### **Benefits**

- $\checkmark$  You will be employed by the host organisation for 36 months.
- ✓ A competitive salary plus allowances. Moreover, funding is available for technical and personal skills training and participation in international research events.
- ✓ You will benefit from the designed training programme offered by the host organisation and the IT-DED<sup>3</sup> consortium.
- ✓ You will participate in international secondments to other organisations within the IT-DED<sup>3</sup> network and in outreach activities targeted at a wide audience.

Please, find additional information in the Information package for Marie Skłodowska-Curie fellows

### Application

Interested candidates are invited to apply for this position by filing in the form on our website (<u>www.it.ded3.eu</u>), via this link: <u>www.uantwerpen.be/en/projects/dry-eye-disease-drug-development/job-openings/submit-your-applicat/</u>

### Additional information

For additional information about the research project and this individual position, please contact:

Contact data: Dr. Amalia Enríquez-de-Salamanca Tel. +34- 983184750 Email: amalia@ioba.med.uva.es

> Institutional Logo (to be filled by the project manager)



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# PhD student - Early Stage Researcher (ESR6)

# Development of new carriers to improve the bioavailability of topic formulations to treat ocular surface inflammatory diseases

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### **Tasks description**

Our objective is to study the biocompatibility and efficacy of different drug delivery systems loaded with natural compounds and formulated to achieve adequate delivery to inflamed anterior eye structures.

Research will cover the following aspects:

- Formulation of natural compounds in drug delivery systems
- Physicochemical characterization of developed formulations
- Biological evaluation of biocompatibility of developed formulations
- In vitro and ex vivo efficacy studies of developed formulations using different inflammation models

We seek a highly motivated researcher to work in a multidisciplinary environment, with a strong background in pharmaceutical sciences, biotechnology and/or biomedical engineering, covering from drug formulation to cell biology.

Skills in cell cultures techniques will be highly valued.

Tentative incorporation date: December 2018

#### **Profile and requirements**

- $\checkmark$  Applicants can be of any nationality.
- Applicants must hold a MSc or equivalent in the field of biomedical sciences, biotechnology, pharmaceutical sciences or an equivalent.
- ✓ Applicants must have an ability to understand and express themselves in both written and spoken English to a level that is sufficiently high for them to derive the full benefit from the network training.
- ✓ Applicants must be eligible to enrol on a PhD programme at the host institution (or at a designated university in case the host institution is a non-academic organisation).

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### Additional information

For additional information about the research project and this individual position, please contact:

Contact data: Dr Yolanda Diebold Tel. +34-983-184750 Email: yol@ioba.med.uva.es

> Institutional Logo (to be filled by the project manager)

