



The European Training Network ETUDE (Encompassing Training in Functional Disorders across Europe): a new research and training program of the EURONET-SOMA network recruiting 15 early stage researchers

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Functional Disorders are traditionally understood as clusters of persistent somatic symptoms that have typical clinical characteristics but currently cannot be associated to reproducibly observable pathophysiological mechanisms. A recent scientifically based diagnostic concept regards functional disorders as an umbrella term for various conditions characterized by persistent and troublesome somatic symptoms that are accompanied by impairment or disability [1]. Accordingly, functional disorders are understood as the product of complex interactions, involving multiple biological, cognitive and psychosocial factors. Diagnosis of functional disorders should thus be made clinically based on characteristic presenting symptoms and in some cases typical physical signs, and not on the presence or absence of specific biological or psychosocial contributors to symptoms. Functional disorders are common, costly and disabling. Both research and clinical care are hampered by diagnostic practices that vary between fields. Psychosomatic medicine, clinical psychology and medical specialties all have their own different concepts of functional disorders which has important consequences for patients. These challenges result in a lack of knowledge on functional disorders, leading to fragmented and insufficient health care for patients with functional disorders, and a society in which patients with functional disorders experience stigma from both the society as well as from health care professionals. Thus, there is an urgent need to solve the fragmented and insufficient education and research

landscape.

The importance of a joint approach to overcome artificial boundaries between fields by interdisciplinary collaborations has led to the initiation of the EURONET-SOMA network in 2016 [2]. This network has identified a pressing need to provide, harmonize, and develop best practice examples for clinical guidelines, diagnostic tools and treatment options for functional disorders. The network published recommendations for trans-diagnostic core outcome domains for clinical trials [3], compared health care for functional disorders across Europe [4], and developed an e-learning for health care professionals. EURONET-SOMA also did a survey among its members, which identified three major challenges that need to be solved across Europe:

1. There is a lack of unifying concepts that cover the whole experience of functional disorders. Diagnostic practices vary between and within somatic and psychiatric fields, and thus the size of the problem remains unclear. This also leads to fragmented research that ignores knowledge, methods and effective treatments available in fields that use other diagnostic classifications.

2. Training programs that are based on an integrated concept, and not artificially on either biomedical or psychosocial approaches are lacking on all levels from undergraduate medical or psychology bachelor and (research) master programs, to post-academic psychology, allied health or medical specialist clinical training, and PhD programs.

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3. The field of functional disorders is under researched given the large unmet clinical needs. This is reflected in the amount of grant funding available, and consequently in the number of research groups and academic chairs.

In response to these challenges, EURONET-SOMA developed a sustainable and structured training programme aimed at educating a new generation of interdisciplinary creative early stage researchers (ESR) that are able to cross disciplines and to translate theory and experimental models to products and services that improve care for patients. This will be done in the form of the European Training Network "Encompassing Training in fUNCTIONAL Disorders across Europe (ETUDE)" "which has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 956673.

ETUDE unites the efforts of an interdisciplinary and dynamic network of different European research groups in close collaboration with relevant industrial and other non-academic partners. We have teamed up a consortium of 15 partners from academia and 15 non-academic partners. Together, we will tackle the above mentioned challenges associated with functional disorders with a total of 15 PhD students. The fellows will receive a comprehensive interdisciplinary gold standard training through local courses and network-wide activities on various topics. Each ESR will do at least one secondment to another academic partner and one secondment to a non-academic partner. This ensures that all fellows can develop vital expertise to work inside and outside academia. ETUDE will thus boost hands-on experiences across interdisciplinary, international, and intersectoral borders.

Research within ETUDE is organized into four research work packages. The first is focused on mechanisms underlying the development of functional disorders, and will go beyond the traditional discipline-specific diagnoses that artificially divide the research field. Within this theme, four PhD students will develop new insights into transdiagnostic mechanisms, which will inform new diagnostic methods or products and identify treatment targets. The second research work package is focused on diagnosis of functional disorders, and will involve three PhD students who will study predictive validity of diagnostic criteria. Their aim is to improve the current symptom-based diagnostic criteria that are insufficiently validated, and to simultaneously establish a basis for future improvements of diagnostic criteria. The third research work package is focused on treatment of functional disorders, and aims to inform evidence-based European recommendations on treatment and health care for patients with functional disorders that include content as well as organization of care for functional disorders. The five PhD students will collectively provide the first encompassing overview of health care for functional disorders across Europe, and will improve care for functional disorders by developing specific products, services and new modes of delivery, and indicators to evaluate them. The fourth research work package is focused on the stigma that patients with functional disorders meet, both from health care professionals as well as from other patients

and the general society. Collectively, the three PhD students in this work package will study stigma, and develop and evaluate methods and products to reduce it.

Central training within ETUDE is organized into network-wide training schools, each involving an advanced scientific course on a specific topic related to functional disorders, a transferable skill course focusing on general academic skills, and an outreach activity. The topics of the training schools follow the work package structure. A training school focused on mechanisms is planned for April 2022, and will include conceptual models and their experimental, computational and epidemiological approaches. A training school covering the topic of diagnosis, including diagnostic classifications and assessment instruments, is planned for December 2022. A treatment-focused training school covering treatment options and their evidence-base is planned for August 2023. A training school discussing attitude and stigma related to functional disorders is planned for April 2024. In September 2024, a summer school is planned covering the broad topic of functional disorders and the new insights obtained within ETUDE. The training schools and the summer school will also be open to PhD students that perform their research outside the ETUDE programme.

ETUDE is currently recruiting 15 PhD students for this European research programme and training network. Details on the specific projects, recruitment procedures, eligibility criteria and on how to apply can be found at <https://www.euronet-soma.eu/itn/>. For further information on the research or training programme you can contact etude@umcg.nl.

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