OPEN PhD POSITION in Innovative Training Networks

We are looking for a dedicated and highly motivated Early Stage Researcher (ESR), who will join our team to build multidisciplinary expertise for fostering future medical solutions applied to tendon repair and diagnosis.

P4FIT description (4 years MCSA-ITN-EJD project starting January 2021)

Perspectives For Future Innovation in Tendon repair (P4 FIT) fosters to build a new generation of ESRs with adequate skills to explore non-conventional therapeutic and diagnostic solutions by exploiting the technological advances in nanomedicine. The translation of innovative nanodevices carried out on integrated pre-clinical and vet/human clinical settings are expected to produce solid evidence-based datasets able to reduce fragmentation still limiting the impact of biomedical discoveries and to offer a unique opportunity for identifying new predictive biomarkers through the use of AI and deep learning data analysis. Working across disciplines and sectors, **P4 FIT** will foster the 15 ESRs to be creative, critical, autonomous intellectual risk takers at the frontiers of research with the R&I mind-set necessary for thriving careers. **P4 FIT** will allow to fill the EU gap in tendon healthcare, building up a generation of researchers able to develop nano-based biomedical devices by integrating biology advances to technology innovation, and to computational revolution. The **P4 FIT** cross-disciplinary approach includes 6 beneficiaries and 21 partner organizations (10 academic and 11 non-academic) from across Europe.

ESR5 – UNITE (double degree with Medical University of Vienna)
Innovation applied to veterinary regenerative medicine

Objectives: To move preclinical proof-of-concepts related to tendon healing effectiveness and safety of different stem cells source or cell-free nanomedicine approaches towards to veterinary clinic.

Expected Results: (1) *In vivo* experimental studies of early, middle- and long-term tendon healing impact on sheep animal models of different stem cells source (autologous transplantation of adipose derived cells *vs.* xenotransplantation of amniotic derived cells). (2) *In vivo* experimental studies of early tendon healing impact on animal models of functionalized nanodevices with immunomodulatory bioactive molecules alone or in combination with stem cells. (3) Morphological, biomechanical and biochemistry advanced analysis of stem cells/nanodrug delivery influence on tendon regeneration. (4) Translation of the results to clinic levels by developing multi-centric trials on spontaneous horses SDFT sub-acute tendinopathies. (5) Test the wireless biosensors for the prognosis of tendon diseases in horses to improve personalized rehabilitation and clinical outcomes.

Keywords: tendon, tendon regeneration, stem cells, amniotic derived stem cells, nanomedicines, immunology, regenerative medicine.

Applicant Profile: Master level in biology, biomedical biotechnology, veterinary medicine, medicine or related field, ideally with background in eukaryote cell biology and biotechnology, immunology, biochemistry, or tissue engineering. Excellent communication skills (both written and oral) in English.

PhD main locations: The recruited ESR is given the opportunity to conduct 3-years of PhD studies at Faculty of Bioscience, Agri-Food and Environmental Technology, University of Teramo (UNITE, Italy) and at Medical University of Vienna (MUW, Austria), and secondments at Fat-Stem Laboratories BV (Belgium).

Double PhD Tutors: Prof. P. Berardinelli and Prof. L. Valbonetti (Doctoral Programme in Cellular and Molecular Biotechnologies, UNITE); Prof. J. Stöckl (Doctoral Programme in Immunology, MUW)

Main contacts:

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More details about P4 FIT project, requirements for the candidates and recruitment procedure:
www.p4fit.eu/jobs