**Production of bioactive plant extracts using environmentally-friendly extraction methods**

**environmentally-friendly extraction methods - Analysis of**

**metabolites of interest and biological properties**

Celabor is a semi-private research centre located in the province of Liège in Belgium, more specifically in the Petit-Rechain industrial estate near the town of Verviers. Its missions are based around two main activities:

- Scientific and technical support for companies operating in the areas of expertise developed at Celabor (service provision)

- Active participation in European research projects in collaboration with a network of industrial and academic partners in the EU, specifically in the field of biomass recovery. It is on this second Celabor is offering an internship in this second area.

During the placement in the **Extraction Department**, the candidate will be required to:

 1) Carry out a literature review on the biomass secondaries to be studied

 2) Develop environmentally friendly extraction methods (sub-critical water extraction, supercritical CO2 extraction, ultrasound assisted extraction, etc) to extract these metabolites

3) To study the biological properties (antioxidant and anti-ageing) of the extract’s products

4) To carry out assays of the secondary metabolites of these extracts using analytical methods (HPLC-DAD, UHPLC-MS and GC-MS).

An exploratory phase is planned for the enzymatic extraction and characterisation of of primary metabolites. This part will depend on the profile and motivation of the selected candidate.

At the end of the internship, the candidate will have acquired solid skills in the fields of (i) eco-extraction at laboratory and pilot scales, (ii) the evaluation of the biological properties of plant extracts and (iii) the characterisation of primary metabolites in complex mixtures.

**Length of placement: 3 to 6 months**

**Are you interested in this position? Please send your CV and cover letter to:**

**jtc@celabor.be (Dr Job Tchoumtchoua)**