**Visiting NMI/DI Scientist Opportunity to the BIPM Chemistry Department**

**Opportunity: C6 Organic Analysis –Small Molecules**

**Start Date: 1 September 2025**

**Duration : 6 months**

**Purpose:**

Development of multicomponent polar pesticide calibration materials and methods for their values assignment for use in knowledge transfer studies and international comparisons.

**Objectives:**

To complete the following activities:

a. Develop and document LC-UV/LC-MS methods to quantify mass fractions of four of the five following compounds within single and multicomponent calibration solutions: glyphosate, aminomethylphosphonic acid, N‑acetylaminomethylphosphonic acid, glufosinate and N-acetylglyfosinate

b. Prepare test ampoule batches of single and multicomponent polar-pesticide solutions containing different combinations of the selected polar pesticides and demonstrate their homogeneity and stability.

**Deliverables:**

a. Internal report on the development of an LC-UV/LC-MS method for the characterization of the selected polar pesticides.

b. Internal report on the feasibility study on multicomponent polar-pesticide solutions containing different combinations of the selected polar pesticides and their stability and homogeneity.

c. Summary reports and presentations of studies undertaken at the BIPM.

**Required qualification/experience:**

Previous experience in one or more of the following:

• LC-UV of small organic molecules

• LC-MS of small organic molecules

• Performing homogeneity and stability testing on organic candidate reference materials