POST-DOCTORAL POSITION

RESCOSAFE project – Bio-based materials

**WHAT WE ARE LOOKING FOR**

* You hold a PhD in polymer or bio-based chemistry
* You are interested in contributing to a multidisciplinary project dealing with bio-based packaging in collective catering via a one-year post-doc fellowship
* You have a strong interest in applying scientific results within the concrete practices of socio-economic actors

**WHAT WE OFFER**

**A one-year post-doctoral contract** at Laboratoire de Chimie des Polymères Organiques (LCPO UMR 5629, supervised by Dr Véronique COMA) fully funded by the RESCOSAFE project.

France’s EGAliM law adopted in November 2018 will ban the use of plastic materials in collective catering for children from 2025. As a result, many municipalities have switched to lightweight, disposable **polylactic acid and cellulose-based packaging**.

**But is this bio-based materials better for human health and the environment than traditional petroleum-based ones?** This study aims to unpack the potential issue of bio-based food packaging by implementing an applied and innovative strategy for guiding decision-making over the selection of materials that provide alternatives to plastics.

To do this, commercial PLA and cellulose trays will be exposed to different food simulants under specific conditions using a pre-determined set of temperature/time/abrasive cycles that are representative of real use conditions. The work will be carried out in close collaboration with the SIVU (the collective canteen for Bordeaux and Merignac), an organization which produces 24,000 meals per day, the majority of which are destined for schools.

The question to be addressed first entails generating knowledge about the impact of the real conditions of use and food reheating processes on the migration into foodstuffs of molecules from alternative materials. The migration of substances intentionally part of the material (polymers and additives) or unintentionally part of it (neoformed compounds - NIAS) will be assessed. Second, the impact of such real conditions on the materials involved will be studied in depth (chemical composition, morphology, mechanical & barrier properties, etc), alongside the impact of substances that have migrated from the materials which affect human health and the environment.

**APPLICATION PROCESS**

1. **Fill in the application form** and providea **CV** and a **motivation letter**
2. **Send the documents by 15th November 2021** to veronique.coma@u-bordeaux.fr and adrien.le-leon@fbxu.org

After a first selection round, the best candidates will be invited to a job interview. The postdoctoral researcher is expected to start from January 2022.

**FOCUS ON RESCOSAFE PROJECT**

The RESCOSAFE project was initiated in the context of a national debate about the risks associated to the use of plastic packaging in collective catering for children. It aims at developing local research actions on catering. containers by applying a multidisciplinary approach (chemistry, Science of materials, health at work, social and political sciences, food engineering) and collaborating with the key players of collective catering

