

Biography Michel LINDER, Medal CHEVREUL 2023

Michel LINDER is a full professor CE2 at the University of Lorraine and teaches at the Ecole Nationale d'Agronomie et des Industries Alimentaires (ENSAIA).

He is carrying out his research on lipids at the Laboratory of Biomolecular Engineering (LIBio).

Biochemist by training and holder of a Ph.D. in 1995 under the supervision of Michel PARMENTIER on the valorization of meat by-products, he specializes in the field of marine lipids by using enzymatic extraction processes of lipids and marine hydrolysates.

In 1999, he spent time at Dalhousie University at the Canadian Institute of Fisheries Technology in Halifax, Nova Scotia, in the laboratory of Robert Ackman, where he enhanced his skills in the analysis of salmon and sea scallops.

Specialized in industrial processes optimization (use of experimental and mixtures design that he also teaches at ENSAIA), he collaborates with Japanese colleagues from HOKKAIDO University in Hakodate on the valorization of marine resources processes (salmon co-products, starfish, and squid, among others).

After modifying marine oils with lipases to enrich them with Long Chain PUFAs, he has been interested in marine lecithins for 20 years, studying their physicochemical properties and the formulation of nano vectors.

These liposomes formulated from marine resources allow the delivery of both naturally occurring LC-PUFAs (EPA and DHA) and hydrophilic or hydrophobic molecules of interest, sought after in the food, nutraceutical, and sometimes health fields.

He has also developed extraction and valorization processes for oils and vegetable fats in collaboration with the French and foreign food industries.

Following the change of formulation and the cooking optimization of French fries at Quick without palm oil in 2006 (during this study, he cooked 4 tons of fries at ENSAIA and fed many students), he became interested in the valorization of used frying oils. He developed patents and licenses on their transformation into biodegradable chainsaw oil for foresters and biodegradable formwork oil for construction.

Author of several patents and licenses in the field of microalgae and salmon heads valorization for 20 years, he is the author of more than 160 articles in international journals and 80 international conferences.

He is an expert at ANSES and is also president of the National Council of Universities, section 68 biology of organisms, and a member of many scientific councils.

He has been in charge of 4 master's degrees, including a research master's degree in food, nutrition, and cosmetics, for 16 years.

He has supervised 21 Ph.D. students, 32 Master's students, and 15 post-doctoral students.

Member of many scientific societies, he was president of the French Society for the Study of Lipids and director of the Laboratory of Biomolecular Engineering.

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