



Zenaida Sumalde
Professor (Retired)
Department of Economics, College of Economics and Management
University of the Philippines at Los Banos
ecamor@up.edu.ph



My field of specialization is Natural Products Chemistry. I mainly work with terrestrial plants, isolating and identifying active compounds for drug development. I am currently part of a multi-disciplinary, multi-agency/institution national program on Discovery and Development of Health Products (DDHP), funded by the Department of Science and Technology (DOST) and the Philippine Council for Health Research and Development (PCHR). Under this research program, a Bioassay Facility at the National Science Complex in the College of Science, U.P. Diliman was established. The priority diseases that the program is focusing on include diabetes, inflammation and pain, hypercholesterolemia, uricosuria, obesity, hypertension, cancer and MDR infections.

I am specifically working now on isolating and identifying active compounds for inflammation and pain. These are then passed on to the Absorption, Distribution, Metabolism, Elimination and Toxicity (ADMET) group for prioritization and development. Among the primary screens that we have in the bioassay facility are *in vitro* enzyme inhibition and cell-based assays.

The DDHP workflow starts with plant extracts coming from partner institutions throughout the Philippines transmitted for testing in the Bioassay Facility. Those that pass the primary screening assays are prioritized based on their toxicity profile using kidney, liver and heart cell lines.

Prioritized non-toxic active extracts can then be directed into two possible paths. One for pre-formulation and formulation, including standardization, with a view toward developing standardized health supplements. These can then be translated into herbal drugs/medicines after clinical trials. The other path, in which I am involved, is toward producing lead drug candidates.

I am also involved in implementing a project on testing for clastogenicity and mutagenicity of different plant preparations as part of the workflow of the National Integrated Research on Medicinal Plants of the Philippines (NIRPROMP) implemented by the Institute of Herbal Medicine in U.P. Manila.

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