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Alberte Pullman

It is an honor and pleasure to present to the readers of Theoretica Chimica Acta a special issue dedicated to Professor Alberte Pullman, a former Research Director at the CNRS (the National Research Council of France). We are grateful to the Editor-in-Chief, Professor Klaus Ruedenberg, and the contributors to the present issue, for their gracious participation. The community of chemists, both theoreticians and experimentalists, may feel that it is not really necessary to introduce Professor Pullman, past President of the International Academy of Quantum Molecular Science, Doctor Honoris Causa of distinguished Universities, and recipient of numerous honors, in particular of the French Order of the Legion of Honor. Nevertheless, we use this opportunity to review her scientific career, because all of her work is intimately connected with the recognition currently accorded to Theoretical Chemistry worldwide.

After graduation from the old Sorbonne, the seat of the late Faculty of Sciences of the University of Paris, Professor Pullman worked on her doctorate with Professor Antoine Lacassagne, a well-known oncologist of the forties. Her assignment was to clarify the quantum-mechanical background of an intriguing correlation observed by chemists and biologists of that time, between the molecular structure and the carcinogenic activity of aromatic hydrocarbons (the PAH's of today!). She received her PhD degree in 1946 and continued this work at the Radium Institute with the support of Louis de Broglie. Her interest then turned to the more general subject of the relationship between electronic structure and molecular properties in close connection with Professor Bernard Pullman. Their results inspired much subsequent research in France and elsewhere.

Later on, Professor Pullman returned to biological problems when she moved to the Institut de Biologie Physico-Chimique (Foundation Edmond de Rothschild), where she devoted her energy to theoretical biology, first at the molecular level (1955–1970) and then at the supramolecular and macromolecular level (1970 to present). Her most recent interest is ion transport in biological membranes.

She utilizes recent advances in molecular modelling in combination with the basic quantum mechanics in a pioneering fashion that opens the way for much future research.

We congratulate Professor Pullman on her splendid achievements and we offer this modest tribute to her as an expression of admiration on behalf of the theoretical chemistry community.

Gaston Berthier Josef Michl