

**PAYING HOMAGE TO ACADEMICIAN
CONSTANTIN TOMA (1935–2020)
IN MEMORIAM**

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I have to confess I am really moved in my attempt of presenting the life trajectory of the distinguished personality of professor Constantin Toma, starting from his first steps up to the end of his life. Suitable words are difficult to find, so that I shall let his accomplishments illustrate this approach, hoping indeed that the young ones will be guided by this path in their efforts to reach the same professional and human height.



Academician Constantin Toma was born on November 19, 1935 in Gugești, county of Vaslui, son of a farmer who cultivated a small surface of land strictly for supporting the family, in parallel working as a furrier, an important handicraft in all villages, especially in winter.

He spent his childhood in the patriarchal atmosphere of the traditional Romanian inter-war village, characterized by modest economic stability, in which each family used to work “from dawn till sunset”, thus earning a modest but quiet living. Unfortunately, the outbreak of the World War II undermined this idyllic life, mainly by the fact that – with all valid men sent to the front – the whole rural economy had to be continued, at all costs, by old people and women – an extremely difficult period, characterized by continuous deprivations and efforts made for mere survival. At the end of the war, the economic and social disaster was followed by the great draught of 1946, which brought about famine and diseases, causing numerous victims, especially in the region of Moldova. Moreover, in 1947, at only 12 years old, Constantin lost his father and the entire family – formed of six children – remained only with the mother, who had to face incredible burdens and who had to guide and care for all of them with stoicism and endless efforts.

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In such a climate of poverty and uncertainties, the child of those days, the distinguished academician of today, came to understand that the only way of facing the burdens of life was work, perseverance, seriousness and sobriety.

He began his first school in 1943, in his native village, then in the small town of Huși. In the year 1950 he was admitted, following a severe exam, to the “Cuza Vodă” Highschool of Huși, a reputed institution, with dedicated teaching staff, animated by high cultural interests, who strived to transmit to their pupils the importance of hard work, seriousness and perseverance in their professional training, as well as a distinguished social education. Along all his secondary school years, he acted with diligence, dedicated to study and to his cultural formation. In 1953, after passing a difficult entry exam, he was enrolled as a student of the Faculty of Natural Sciences – at the “Alexandru Ioan Cuza” University of Iași.

As a student, he continued to face numerous material difficulties, yet, with the enthusiasm of his youthful years, he remained confident in his own powers, and continued to work hard.

During all his five years of university studies, he never missed a lecture, laboratory work, the practice hours, while also participating to extra-school activities, eager to enlarge his cultural and social horizon.

As he himself declared more than once, in various occasions, the young student had reputed professors as mentors and models, who taught him strictness, professional abnegation and objective exigency, a lesson of life he later on, in his turn, applied in his future university didactic career, with his students.

At the end of the university years, in 1958, professor Constantin Burduja, head of the discipline of Plant Morphology, who appreciated the results obtained by his very special student, invited him to apply for the position of university teaching assistant, so that, after the examination he passed, starting with October 1, 1958, Constantin Toma began his didactic career; one year later, he was promoted university assistant, and in 1966 – lecturer.

From his first years of didactic career, he won students attention by his professional abnegation, limpidity of lectures, always accompanied by a very rich illustrative didactic material and a lot of drawings, guiding them with patience and understanding along the difficult paths of learning: assimilation of the numerous botanical terms, utilization of the microscope for the discovery of the invisible structural universe of plants, mastering of the technique of microscopic preparations.

In 1962, he became a candidate for a PhD degree at the University of București, his PhD thesis, supervised by the reputed professor Ion T. Tarnavschi, and entitled “A morpho-anatomic (comparative, ontogenetic, ecologic and experimental) study of all species of *Coronilla*, *Onobrychis* and *Trifolium* from the flora of Romania”, being publicly defended in 1969.

In the new position of Doctor in Biology, C. Toma elaborated an impressive number of scientific studies, recognized at both national and international level, which brought to him, in 1972, the position of associate professor; there followed, in 1978, in a period when the scientific titles were rarely offered, and quite often on

the basis of political and not on competence criteria, the position of full professor, a promotion supported by his personal scientific achievements, recognized both in the country and abroad.

His almost permanent presence in the laboratories and the availability to dialogue with all those asking for answers to difficult professional questions, explained the great number of students attending the laboratory of vegetal anatomy and morphology, who prepared their Bachelor, Master or PhD thesis works, as well as of the secondary school teachers interested in obtaining their didactic degrees.

In 46 years, he delivered 12 lectures in various domains of vegetal biology. His basic course as full professor, since 1972 up to the year of his retirement, 2005, was that of *Morphology and anatomy of plants*, however, over this time he also taught courses of: *Vegetal cytology*, *Evolutionary strategies in the vegetal kingdom*, *Vegetal morphogenesis*, *Floral architecture*, *Pollination and fecundation in Angiosperms*, *Biogeography*, *Xylotomy*, *Biology and Ecology*. All these lectures, supported by practical papers, have been continuously updated, following the new progress registered in the domain, in which a special part is represented by his own scientific investigations, materialized in more than 480 original studies published in various prestigious national and international journals of the field, 21 monographs, treatises and books of maps, 120 papers devoted to the history of biology (anniversary and commemorative portraits), over 100 popularization works, 38 reviews and 10 university courses. Two of these treatises and two of their chapters have been published at Springer Publishing House, and two of his courses – at the Publishing House of the Romanian Academy.

Apart from the theoretical lectures and laboratory works, the summer practice outdoor stages were always expected with enthusiasm by both his students and younger colleagues. As a punctilious leader, he organized and coordinated the summer stages for 46 series of students in various regions of Romania, from the Black Sea up to the heights of the Carpathians and from the Danube Delta up to the Ceahlău Mountain, wonderful occasions for teaching applied botanics in nature, in a highly relaxing and pleasant manner. During such stages, he used to review all subjects approached during the year in his courses and laboratory works; the active and composed professor, always ready to interactive dialogue, captivated his students by the manner of discussing the notions of interdependence among the multiple natural factors known as acting upon the plants and vegetation of some region. Equally, the long trips organized all over the country were an opportunity to visit numerous cultural and historical objectives, museums, memorial places, historical sites and monuments, natural reservations, botanical and zoological gardens, monuments of nature, which decisively contributed to enlarging students cultural horizon.

In 1988 professor Constantin Toma became a PhD scientific supervisor for Botanics works. Accordingly, he guided the elaboration of 35 theses of various didactic representatives and researchers, most of them recognized nowadays as reputed specialists in Botanics in both Romania and abroad. Since 2005, he has acted as executive manager of the PhD School within the Faculty of Biology of

Iași, in charge with the selection of the candidates for a doctor degree for the admittance exam, with the scientific quality of the PhD theses, periodical presentation of reports, according to the individual preparation stages, selection of official reviewers in PhD commissions and also with the elaboration of some research projects approaching the actual tendencies registered in the domain.

With a view of increasing the qualitative level of the scientific works he guided, in 1990 he organized the laboratory of electronic microscopy, for which he obtained two – transmission and scavenging – microscopes; also, he organized specialization stages, in laboratories of our country and also of Europe, for two young coworkers, members of the didactic staff of the university, for acquiring the new techniques and methods of electronic microscopy. The studies initiated in this laboratory include PhD theses, diploma works, papers of secondary school teachers interested in obtaining their didactic degrees, original scientific investigations. Another initiative of acad. Toma was the creation – in Iași in 1992 – of the first laboratory for *in vitro* tissue cultures, for didactic and research scopes.

In his morpho-anatomical-histological investigations, he developed and favoured a relationist approach among structure, functions, and environment, outlining their practical importance in numerous domains. By the new holistic research concept, by the constant, large number of investigators, by the acquisition of the necessary material endowments, and by granting optimal conditions for the elaboration of scientific works, acad. Constantin Toma established in Iași an authentic vegetal morpho-anatomical-histological school, unanimously recognized by both Romanian and foreign specialists of the field.

Along the years, his ample and constant didactic and scientific activity came to be recognized and appreciated by reputed academic institutions of Romania and the Republic of Moldova, which awarded him numerous prizes and distinctions, such as: *member of the Romanian Academy* since 1991; *Full member of the Academy of Ecology of the Republic of Moldova* since 1995; *Honorary member of the Academy of Sciences of the Republic of Moldova* since 2011; “*Emanoil Teodorescu*” *Prize of the Romanian Academy* (1978, 2000, 2002, 2016); *Professor emeritus* (2006); *Chevalier of the “Teaching Merit” Order and Medal* (2004); *Professor of Merit* (1982); *Doctor Honoris Causa of the University of Bacău* (2005); *Doctor Honoris Causa of “Vasile Goldiș” University of Arad* (2008); *Doctor Honoris Causa of the University of Oradea* (2009); *Doctor Honoris Causa of “Apollonia” University of Iași* (2010). All these high positions acknowledge, beyond any doubt, the contribution brought by Constantin Toma to the development of the university education and science in Romania, and also the high esteem expressed by the academic institutions of the Republic of Moldova.

Apart from his didactic and scientific functions, acad. Toma was elected, in several positions, in the management structures of “Alexandru Ion Cuza” University of Iași: *university chancellor, deputy dean, dean, scientific secretary, head of department, manager of the Institute of Biological Researches, manager of “Anastasie Fătu” Botanical Gardens of Iași*, after the retirement of the reputed botanist Emilian

Țopa. In such a position, he was actively and busily involved for almost four years, with all his energy and skills, in the elaboration of new development projects, arrangement of new sections, building up of new greenhouses, collecting new plants from all regions of the country, establishment of new international relations promoting the exchange of rare seeds for enriching the existing collections with plants from all over the world. In all these initiatives, he was supported by a carefully selected team of researchers, technicians and workers, all young and dedicated to their work in the Botanical Gardens.

At national level, he was a member of the National Council for Academic Evaluation and Accreditation (1994–2005) and a member of the Biology Commission of the National Council for University Titles, Diplomas and Certificates Attestation (1995–2005).

Another domain in which he was actively involved was the management of several journals and publications: he was an editor, a member of the Editorial Boards and a scientific reviewer of numerous volumes and studies of his field. For example, mention should be here made of the positions of: deputy editor of the Romanian Journal of Plant Biology – The Romanian Academy; editor-in-chief of the journal *Analele Științifice ale Universității “Alexandru Ioan Cuza”* of Iași, Vegetal biology series; manager of the COLUMNA (CRIFST) journal – Romanian Academy; member of the Council of the Romanian Academy Publishing House; member of the Research Board of Advisors of the American Biographical Institute; president of the Subcomission of Natural Monuments of Moldova.

Few people have the privilege of enjoying the esteem and appreciation of their fellow citizens and of their colleagues and collaborators. Academician Constantin Toma enjoyed this privilege: in 2011 he became “Honorary Citizen” of Boțești commune, county of Vaslui, to which his natal village, Gugești, belongs, and in 2019 he received the title of “Honorary Citizen” of the Iași city, where he had worked over 66 years. Apart from the esteem expressed by these titles, they also contributed to increasing the prestige of the localities reminding of the name of academician Constantin Toma.

During his life until the age of 85 years, prof. Constantin Toma faced several attempts and challenges of life and may be considered a vanquisher; his personal qualities, the persevering work and tenacity for attaining the scientific objectives propelled him towards the highest university and academic positions. A reliable colleague, with much ceremony on all occasions for all his coworkers and students, a discoverer, a creator and a guide of values, appreciated and esteemed as a reputed scholar and man of science, gifted and scrupulous researcher, unanimously recognized by his Romanian and foreign colleagues, acad. Toma remains a model of professional abnegation for both the present and future generations.

An impressive personality, even-tempered, strict in all his undertakings, a reputed representative of the Romanian school of Botany, an example of professional conduct, professor Constantin Toma is and will remain a symbol of the University of Iași.

The active and permanent involvement in a wide variety of activities in the professional, scientific, cultural, and social fields, to which were added some personal troubles, weakened his health and on September 8, 2020, after a long battle with the disease, he left this world, heading for the eternal ones, leaving behind the regret of his family, friends, collaborators and all those who knew him.

For everything he has achieved in the progress of botany in Romania, for research and education in Romania, for the care and dedication with which he guided the destinies of many generations of young naturalists, I express my full consideration and I pray that God will rest him in peace in the world of flowers that he took care of all his life.