

## IN MEMORIAM



### **Doctor Egeny Kachvoryan**

**2.III.1942-6.XII.2008**

On 6 December 2008 Egeny Kachvoryan, an eminent specialist in the field of entomology, taxonomy, cytogenetics and ecology of blackflies (Simuliidae, Diptera) passed away. She had many ideas and plans for the future and until her last day she was struggling courageously with the incurable disease. Until nearly the very end she was full of energy capacity for work and optimism. She lived a short but interesting life, which included both happy and tragic events. She was a religious person. During the difficult periods of her life she could survive remaining a moral and cheerful person and continued working intensively and fruitfully. The years of life of this courageous intelligent woman coincided with the difficult periods of once a large country, the

USSR. Those were the years of the Great Patriotic War (1941-1945) and the hard postwar years, then the Nagorno-Karabakh war (1992-1994), a terrible period of starvation and cold in Armenia. She survived all these difficulties with dignity: brought up two daughters, her scientific career was successful.

For more than 35 years E. Kachvoryan studied cytogenetics of blackflies of Armenia, participated in many scientific expeditions, was a well known scientist in this field of entomology. Scientific activities of E. Kachvoryan were devoted to a study of giant polytene chromosomes, a study of intraspecific variation of cytogenetic characters; revealing of chromosome polymorphism, a study of correlation between chromosome rearrangements

and diverse anthropogenic impacts. E. Kachvoryan wrote about 100 articles, which were published in leading Russian and international journals.

E. Kachvoryan was born into an artistic family on 2 March 1942 in Tbilisi. Her parents were people of high culture and wide erudition. They were an example for Egeny from her childhood, conveying to her kind attitude towards people, responsibility, and diligence. Egeny got her secondary education in a Russian school in Tbilisi. Since the childhood she displayed different talents and was making an excellent progress in a comprehensive school and in a musical school, in piano class. Already in her school years Egeny displayed interest in natural sciences. In 1963 she entered Yerevan State University, the Biological Faculty and graduated from the university in 1968 getting the specialty "biologist and teacher of biology and chemistry". At first E. Kachvoryan worked in a secondary school, later she entered the Institute of Zoology of the Armenian SSR Academy of Sciences where she worked as an assistant of Prof. S. Yablokov-Khndzoryan. E. Kachvoryan became a postgraduate student at the same institute. Her supervisor was the leading dipterologist of Armenia Prof. A.E. Terteryan. In 1970 she moved to Leningrad where she continued her post-graduate study at the Zoological Institute of the USSR Academy of Sciences under the supervision of Prof. L.A. Chubareva. In 1978 in Kiev at the Institute of Zoology of the Ukrainian SSR Academy of Sciences E. Kachvoryan successfully defended her candidate dissertation entitled "Morpho-ecological and comparative karyological study of close species blackflies of the genus *Cnetha* End. of the assemblage *fontium* Rubz. (Diptera, Simuliidae)".

At the Institute of Zoology of the Armenian Academy of Sciences E. Kachvoryan began her career as an assistant and finished as

head of a research group. Since 1997 she began working at the Institute of Molecular Biology of the Armenian Academy of Sciences where she organized and headed a group of population genetics and ecology. The group conducted research work using cytogenetic and molecular-genetic methods and had notable scientific achievements. Diverse studies were conducted by the group including analysis of theoretical and practical problems of entomology and cytogenetics. Those studies covered the following subjects: a) population genetics and genetic consequences of climatic and other environmental changes on populations of aquatic and terrestrial insects; b) genome variation and microevolution, establishing of phylogenetic and evolutionary relations of blood-sucking Diptera on the basis of studying their genomes; c) genetic monitoring of blood-sucking Diptera, dangerous vectors of infectious diseases, such as malaria, anthrax, onchocerciasis, yellow fever, rabbit-fever, encephalitis, encephalomyelitis, microfilariosis, etc.; d) biocontrol of blood-sucking Diptera for the purpose of prophylaxis of malaria and anthrax; e) ecology of natural waters, water quality and biodiversity of aquatic fauna; f) monitoring of terrestrial and aquatic systems; g) applied tasks of conservation of biodiversity and water quality of natural water-bodies. The research group has obtained invaluable data on recent state of biodiversity of the family Simuliidae of Armenia, revealed new species and new cytotypes, developed cytogenetic markers for identification of species and establishing their relationships.

In 2000 E. Kachvoryan established a non-governmental ecological scientific public organization "Aquafauna". She was a member of the scientific council of the Institute of Molecular Biology and non-governmental scientific organization "BioEcoMed", participated in many international conferences.

E. Kachvoryan and her research group were many times awarded diplomas and grants from Armenian and international scientific societies: ISF (International Scientific Foundation, USA), CRDF (Civilian Research Development Foundation, USA), NFSAT (National Foundation for Sciences and Advanced Technologies, Armenia), and ISTC (International Scientific and Technical Center). A week after E. Kachvoryan's death news came that her last project "Molecular-genetic monitoring of blood-sucking Diptera as the basis of biological control of vectors of dangerous infectious diseases and prevention of bioterroristic acts" (ISTC) was adopted.

Possessing comprehensive knowledge and wide erudition E. Kachvoryan coped with all the tasks, was highly industrious and devoted to science. To recognize her merits a simuliid species was named after her, *Simulium kachvoryanae* (Usova et Zinchenko, 1991).

Egeny was a wonderful friend, kind to all who surrounded her; she was sympathetic, benevolent, honest, thus arousing deep sympathy in everyone who knew her. Memory of Egeny Kachvoryan, a talented scientist, recognized specialist (entomologist and karyosystematist), a warm-hearted person will be forever remained in the hearts of her friends and colleagues.

*Editorial Board of Comparative Cytogenetics expresses thanks to Egeny Kachvoryan's relatives for providing details of her biography.*