

Mariusz Jaskólski

### **Biographical note**

Prof. Mariusz Jaskólski is a crystallographer and structural biologist, studying the three-dimensional structure of the molecules of life, proteins and nucleic acids. In 1988, he coauthored (with the group of Dr. Wlodawer of NCI) the discovery of the structure of HIV protease, a key enzyme of this retrovirus. That structure immediately became the basis for the development of a dozen of very successful drugs, saving the lives of many AIDS patients. In the 1990s, with the same NCI team, he discovered the structure of the catalytic domain of another retroviral enzyme, the integrase. In 2005, he coauthored the structure of the protease from a leukemia-causing retrovirus, and in 2011, together with Czech and American groups, presented the structure of yet another retroviral protease, solved with the application of a computer game and with the participation of several hundred thousand citizen scientists. In the early 1990s, again teaming with his collaborators at the NCI, Prof. Jaskólski solved the structure of bacterial asparaginase, an important antileukemic protein. His further studies of asparaginases in Poland were supported by the Howard Hughes Medical Institute (HHMI). His current research interest is in novel asparaginases with focus on their application as antileukemic agents. In 2001, Prof. Jaskólski explained the mechanism of aggregation of an amyloidogenic protein responsible for a lethal cerebral angiopathy. The Foundation for Polish Science (FNP) awarded this achievement with its prestigious FNP Prize in 2002. In 2015, together with Dr. Wlodawer, Prof. Jaskólski received the first Poland-U.S. Science Award from the American Association for the Advancement of Science and FNP for the best Polish-American scientific collaboration. In 1994, Prof. Jaskólski created the Center for Biocrystallographic Research, the first protein crystallography laboratory in Central Europe. Prof. Jaskólski advised 14 PhD theses. He is ordinary member of the Polish Academy of Sciences, a member of European Molecular Biology Organization, and a foreign member of Regia Societas Scientiarum Upsaliensis (Sweden).

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