



Curriculum Vitae Professor Dr Eva Kondorosi

Name: Eva Kondorosi

Research Priorities: Plant-bacteria-symbiosis (rhizobia-legume symbiosis), differentiation of plant cells, cell cycles, resistance mechanisms

Eva Kondorosi is a Hungarian microbiologist. She studies the differentiation of plant cells, cell cycles, and mechanisms of resistance. Furthermore, her research contributes vitally to a deeper understanding of plant-bacteria symbiosis.

Academic and Professional Career

- since 2012 Research Professor, Symbiosis and Functional Genomics Unit, Biological Research Centre, Hungarian Academy of Sciences (MTA), Hungary
- 2007 - 2012 Founding Director, BAYGEN Institute, Biological Research Centre, MTA, Szeged, Hungary
- 2000 - 2013 Research Director, Plant Science Institute (Institut des Sciences du Végétal), Centre National de la Recherche Scientifique (CNRS), Gif-sur-Yvette, France
- 1996 Habilitation, MTA, Hungary
- 1989 - 2013 Group Leader, Plant Science Institute (Institut des Sciences du Végétal), CNRS, Gif-sur-Yvette, France
- 1987 - 1989 Project Leader, Max Planck Institute for Plant Breeding Research, Cologne, Germany
- 1978 - 1987 Associate, Institute for Biochemistry, Biological Research Centre, MTA, Szeged, Hungary
- Studies in Biology, Loránd-Eötvös University, Budapest, Hungary

Functions in Scientific Societies and Committees

2019	Member, Academic Advisory Board, University of Cologne, Cologne, Germany
2019	Member, International Committee, Polish Excellence Initiative, Ministry of Science and Higher Education, Poland
2018	Member, Jury "Award in Biomedicine", BIAL Foundation, Coronado, Portugal
2018	Member, Strategic Advisory Committee, University of Oslo, Oslo, Norway
2017 - 2019	Vice President, European Research Council (ERC)
since 2015	Member, Board of Directors, Academia Europaea
since 2013	Member, Scientific Advisory Board, ERC
since 2013	Member, Scientific Advisory Board, Secretary General, United Nations (UN)
2010 - 2012	Member, Long Term Fellowship Committee, European Molecular Biology Organization (EMBO)
since 2008	Member, Board of Directors, International Society for Molecular Plant-Microbe Interactions (ISMPMI)

Project Coordination, Membership in Collaborative Research Projects

2011 - 2016	Coordinator, Advanced Grant "Symbiotics", ERC
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Honours and Awarded Memberships

2022	Best Molecular Biology Scientists, Research.com
2021	Prima Primissima Award, Category of Hungarian science, Prima Primissima Foundation (Prima Primissima Alapítvány), Budapest, Hungary
2018	Balzan Prize for Chemical Ecology, International Balzan Foundation, Milan, Italy
2017	Member, European Academy of Microbiology
2016	Main Award, Szeged Foundation (Szegedért Alapítvány), Szeged, Hungary
since 2016	Member, MTA, Hungary
since 2015	Member, German National Academy of Sciences Leopoldina
since 2013	Foreign Member, Académie d'Agriculture de France, France
2012	Széchenyi Prize (Széchenyi-díj), Ministry of National Resources, Hungary
2012	IS-MPMI Award (together with Adam Kondorosi), International Society of Molecular Plant-Microbe Interactions

2011	Prix de La Recherche en Biologie, La Recherche
2010 - 2016	Corresponding Member, MTA, Hungary
since 2010	Foreign Associated Member, National Academy of Sciences (NAS), USA
since 2010	Member, Academia Europaea
2007	Magda Gábor-Hotchkiss Award, Dr. Rollin D. Hotchkiss Foundation, Biological Research Centre, Szeged, Hungary
since 2006	Member, EMBO
1985	Academic Award (Akadémiai Díj), MTA, Hungary
	Fellowship, School of Biological Sciences, University of Sussex, Brighton, UK
	Fellowship, AFRC Unit of Nitrogen Fixation, University of Sussex, Brighton, UK
	Fellowship, Max-Planck-Institut für Züchtungsforschung, Köln
	Fellowship, Harvard University, Cambridge, USA
	Fellowship, Boyce Thompson Institute, Cornell University, Ithaca, USA

Research Priorities

Eva Kondorosi is a Hungarian microbiologist. She studies the differentiation of plant cells, cell cycles, and mechanisms of resistance. Furthermore, her research contributes vitally to a deeper understanding of plant-bacteria symbiosis.

Eva Kondorosi investigates the later as exemplified by the relationship between Rhizobia and legumes. Certain types of legumes develop root nodules under the presence of certain soil bacteria, called Rhizobia. These nodules promote the growth of microorganisms. Furthermore, Rhizobia can filter nitrogen from the air and to provide it as a nutrient to the plant. Through this symbiotic relationship, the plants also influence the rhizobia. The bacteria grow into polyploid, nitrogen-fixing bacteroids with an altered membrane in the radicular nodules. Thus, they develop into a specifically symbiotic form. This process of differentiation is controlled by the exchange of chemical signals between the two partners. Of special importance are cysteine-rich peptides that carry the signals in the nodules. Eva Kondorosi discovered both the plant-controlled alteration process of rhizobia, as well as a variety of peptides. In this way, she considerably advanced the understanding of the interactions between legumes and rhizobia.

In Addition to her main research area, Eva Kondorosi significantly contributed to the study of the plant cell cycle as well as to developmental biology. While they are contributions to fundamental research, they also enable new approaches in applied research. An understanding of the rhizobia's nitrogen fixation is crucial for questions of food security and for a reduced use of artificial fertilizers, which are harmful to the climate. Furthermore, many of the thus discovered peptides show an

antibacterial efficacy. This opens new possibilities for the development novel antibiotics that could prove effective against currently resistant bacteria.