Name: **Prof. Dr. habil. Ferenc VIRÁNYI**
Address: Szent István University (SZIE), Plant Protection Institute,
2103 Gödöllö, Páter K.u.1. Hungary
Personal data: Born: Budapest, 29.01.1941
Marital status: married, one daughter
Education: 1961-1966 University College of Horticulture (UCH), Budapest
Degrees:
1966 M.Sc. in Horticultural Plant Protection at UCH, Budapest
1980 Ph.D. in Plant Pathology (sunflower downy mildew) at the Hungarian Academy of Sciences (HAS), Budapest
1993 D.Sc. in Plant Pathology (downy mildews) at HAS, Budapest
1995 Habilitation at SZIE, GödöllQ
Positions Held:
1966-1969 Research Assistant at the Experimental Station of the Plant Protection Institute, Budapest
1969-1980 Research Associate, Plant Protection Institute, Budapest
1981-1988 Senior Researcher, Ibid
1988-1994 Head, Plant Pathology and Pathophysiology Department of the Plant Protection Institute, HAS, Budapest
1994-1995 Associate Professor in Plant Pathology at SZIE
1995- 2011 Full Professor in Plant Pathology at SZIE
Courses Taught:
1973 Introductory Plant Pathology at UCH
1981- 1993 Plant Pathology at SZIE
1991- 1993 Mycology at the Eötvös Lorand University, Budapest
1995- 2011 Introductory Plant Pathology, General Plant Pathology, Diseases of Field and Horticultural Crops at SZIE
1995- General and Agricultural Mycology; Selected topics in Phytopathology, each for PhD students
Research Fields:
1969-1970 Powdery mildew of apple
1971- Downy mildews of various crops (ecology, life-cycle,reproduction biology)
1976- Downy mildew of sunflower (biology and variability of pathogen,host
- pathogen relations, resistance phenomena, means of control)

Other fields of interest:

Diseases of sunflower and grapevine, plant pathogenic oomycetous fungi and powdery mildews: fungal reproduction, histopathology and ultrastructure of host – pathogen interface, population biology, alternativ disease control

Scholarships:

1975-1976 Institute of Phytopathological Research, Wageningen, The Netherlands (OÖT)
1978 Soviet Union (MÉM)
1983 IPF, Kleinmachnow, GDR (MTA)
1984 IPF, Kleinmachnow, GDR (MTA)
1985 Great Britain (Royal Society)
1985 INRA, France (OTKA)
1987 Great Britain (Royal Society)
1989 Yugoslavia (Univ. Novi Sad)
1990 USDA, Fargo, ND, USA (Ciba-Geigy, Pioneer)
1991 Great Britain (British Council)
1993 USDA, Fargo, ND, USA (US-Hungarian Joint Fund)
1995 USDA, Fargo, ND, USA (US-Hungarian Joint Fund)
1996 University of Giessen, Germany (DAAD)
1997 Swedish Agricultural University, Uppsala-Alnarp (MÖB)
1998 University of Giessen, Germany (DAAD),
University of Izmir, Turkey (MÖB-TÜBITAK project)
1999 University of Giessen, Germany (DAAD)
2000 University of Hohenheim (DAAD)
2005, 2007 Institute of Sustainable Agriculture, Cordoba (KPI)

Other professional activities:

1982-1991 Co-organizer of the Annual Meetings on Hungarian Plant Protection Research
1989- 1995 Convenor of the ISPP Downy Mildews Working Group and editor of the DM
Newsletter
1993- Member of the Editorial Board of „Ochrana Rostlin/Plant Protection Science”
1994- Member of the International Sunflower Association (ISA), the American
Phytopathological Society (APS), the British Mycological Society BMS), the
British Society for Plant Pathology (BSPP), and the Deutsche

Phytomedizinische Gesellschaft (DFG)
Member of the Editorial Board of "Acta Phytopathologica et Entomologica Hungarica"
1997- 2002 Member of the Committee, General Microbiology of the Hungarian Academy of Sciences
1998- Memeber of the Plant Protection Committee of the Hungarian Academy of Sciences
1999- Member of the Mycology Committee of the HAS
2000- 2008 Leader of the Crop Sciences PhD School at SZIE
2001- Member of the ISA Executive Board
2007- 2011 Leader of the EUCARPIA Oil and Protein Crops Section

Honours and awards:

1985 Gold Wreath Award of the Hungarian Society of Agricultural Sciences
1986 Award for Outstanding Support of Agricultural Cooperatives
1987 Honoured Inventor Bronze Medal
1990 Gold Wreath Award of the Hungarian Society of Agricultural Sciences
1999 Pro Re Rustica Promovenda Award
2008 Pustovoit Award of the International Sunflower Association

Knowledge of languages:

Hungarian (mother tongue); English: fluent; German: good; Russian: fair

Research grants in the last few years:

2002-2004 Plant activators and their role in controlling sunflower diseases (OTKA)
2006-2008 On the probability of using microbial antagonists to control white rot of sunflower (GAK)
2010 -2012 Improving resistance/tolerance of sunflower to downy mildew and sclerotinia rot by using chemical inducers

Publications on sunflower:

1. Book chapters:

VIRÁNYI,F. (1988) Plasmopara halstedii (Farlow) Berl. & de Toni In: European Handbook of Plant Diseases (I.M. Smith et al. eds.), Blackwell Scientific Publ.,

Oxford, pp. 228-230.
VIRÁNYI,F. (1992) Downy mildew of sunflower. In: Plant Diseases of International Importance Vol. 2, Diseases of Vegetables and Oil Seed Crops (H.S. Chaube et al., eds.), Prentice Hall, Englewood Cliffs, New Jersey, pp. 328-344.
VIRÁNYI,F. (1992) Plasmopara halstedii. In: Quarantine Pests for Europe (I.M. Smith et al., eds.), University Press, Cambridge, pp. 613-617.
VIRÁNYI,F. (1997) Plasmopara halstedii In: CABI Crop Protection Compendium (an electronic form), CABI, UK.
VIRÁNYI,F. (2002) The sunflower – Plasmopara halstedii pathosystem: natural and artificially induced coevolution. In: Advances in Downy Mildew Research (P.T.N. Spencer-Phillips, U. Gisi & A. Lebeda, eds.), Kluwer Academic Publishers, Dordrecht, pp. 167-172.
BÁN,Rita, F. VIRÁNYI, Hedvig KOMJÁTI (2004) Benzothiadiazole-induced resistance to Plasmopara halstedii (Farl.) berl. Et de Toni in sunflower. In: Advances in Downy Mildew Research Vol. 2, (P. Spencer-Phillips and M. Jeger eds.), Kluwer Academic Publishers, Dordrecht, pp. 265-273.
KOMJÁTI,H., FEKETE,Cs., VIRÁNYI,F. (2004) Genetic and molecular characterization of Plasmopara halstedii isolates from Hungary. In: Advances in Downy Mildew Research Vol. 2, (P. Spencer-Phillips and M. Jeger eds.), Kluwer Academic Publishers, Dordrecht, pp. 193-201.
KÖRÖSI, K., LÁZÁR, N., VIRÁNYI, F. (2007) Resistance response to downy mildew (Plasmopara halstedii) in sunflower (Helianthus annuus) activated by chemical inducers. In: Advances in Downy Mildew Research Vol. 3, (A. Lebeda and P.T.N. Spencer-Phillips eds.), Palacky University in Olomouc and JOLA, v.o.s., Kostelec na Hané Publ., pp. 237-241.

2. Research papers:

VIRÁNYI F. (1977) Detection of downy mildew infection in sunflower under laboratory conditions. NÖVÉNYVÉDELEM 13: 289-293. (in Hungarian)
VIRÁNYI,F. (1977) An improved method for detecting systemic infection of sunflower seedlings caused by Plasmopara halstedii. ACTA PHYTOPATHOL HUNG 12: 263-267.
VIRÁNYI,F. (1978) Harmful incidence of Plasmopara halstedii in downy mildew "resistant" sunflowers. PHYTOPATH Z 91: 362-364.
VIRÁNYI F. , HÖLTZL P. (1978) The use of SEM for studying sunflower downy mildew. NÖVÉNYVÉDELEM 14: 390-393. (in Hungarian)
VIRÁNYI,F. , A. DOBROVOLSZKY (1980) Systemic development of Plasmopara halstedii in sunflower seedlings resistant and susceptible to downy mildew. PHYTOPATH Z 97: 179-185.

VIRÁNYI F. , Sz. NAGY Gyöngyvér (1980) The joint occurrence of powdery and downy mildews in sunflower. NÖVÉNYVÉDELEM 16: 170-172. (in Hungarian)
BARTHA M., VIRÁNYI F. , LUKÁCS Piroska (1981) A new complex method for the evaluation of downy mildew resistance in sunflower. NÖVÉNYTERMELÉS 30: 127-133. (in Hungarian)
Sz. NAGY,Gyöngyvér, F. VIRÁNYI (1981) Susceptibility of sunflowers to powdery mildews induced by Plasmopara halstedii. ACTA PHYTOPATHOL HUNG 16:41-44.
VIRÁNYI,F. , M. BARTHA (1981) Evaluation of sunflowers for the degree of resistance to downy mildew. ACTA PHYTOPATHOL HUNG 16: 265-267.
VIRÁNYI,F. , G. OROS (1981) Changes in the development and metabolism of sunflowers infected by Plasmopara halstedii. ACTA PHYTOPATHOL HUNG 16: 273-279.
MOHAMED,S.A. , F. VIRÁNYI (1983) Effect of nitrogen supply on downy mildew development in sunflowers grown in perlite culture. ACTA PHYTOPATHOL HUNG 18: 281-290.
MOHAMED,S.A., F. VIRÁNYI (1983) Effect of nitrogen on the susceptibility of sunflowers to downy mildew infection. TAGS BERICHT AKAD LANDWIRT WISS DDR Berlin 216: 643-648.
MOHAMED S.A. , VIRÁNYI F. (1983) The effect of nitrogen amount applied to sunflower in a nutrient solution on the susceptibility to downy mildew. AGROKÉMIA TALAJTAN 32: 429-431. (in Hungarian)
VIRÁNYI,F. (1984) Recent research on the downy mildew of sunflower in Hungary. HELIA 7: 35-38.
VIRÁNYI,F. (1985) A simple technique for long-term storage of Plasmopara halstedii sporangia at low temperature. TRANS BR MYCOL SOC 85: 529-531.
VIRÁNYI,F. , S.A. MOHAMED (1985) Factors associated with downy mildew resistance in sunflower. ACTA PHYTOPATHOL HUNG 20: 137-139.
OROS,G. , F. VIRÁNYI (1986) Tridemorph acts on the cell membrane of Plasmopara halstedii. ACTA PHYTOPATHOL ENTOMOL HUNG 21: 157-164.
VIRÁNYI F. , OROS Gy. (1986) Fungicide efficacy in the greenhouse against Plasmopara halstedii (Farlow) Berlese & de Toni. NÖVÉNYVÉDELEM 22: 1-10. (in Hungarian)
VIRÁNYI,F., I. SZIRÁKI (1986) Establishment of dual cultures of Plasmopara halstedii and sunflower. TRANS BR MYCOL SOC 87: 323-325.
OROS,G. , F. VIRÁNYI (1987) Glasshouse evaluation of fungicides for the control of sunflower downy mildew (Plasmopara halstedii). ANN APPL BIOL 110: 53-63.
OROS,G., F. VIRÁNYI, B., VEGA-FALLS (1987) Can differences in the

physiological status of Plasmopara halstedii mycelium alter its sensitivity to fungicides? ISPP CHEM CONT NEWSL 8(January): 22-23.
VIRÁNYI,F., G. OROS (1987) Effect of anti-oomycete fungicides on the life-cycle of Plasmopara halstedii. TAGS BERICHT AKAD LANDWIRT WISS DDR Berlin 253: 331-337.
OROS,G., T. ÉRSEK, F. VIRÁNYI (1988) Effect of tridemorph on Phytophthora infestans and Plasmopara halstedii. ACTA PHYTOPATHOL ENTOMOL HUNG 23: 11-19.
VIRÁNYI,F., G. OROS (1988) Changes in pigment constitution of downy mildewed sunflower after metalaxyl treatment. ACTA PHYTOPATHOL ENTOMOL HUNG 23: 21-25.
VIRÁNYI,F., G. OROS (1988) A comparison of fungicides against Plasmopara halstedii and a proposal for their practical use. HELIA 11: 55-58.
VIRÁNYI,F., G. OROS (1990) Antifungal activity of andoprim against sunflower downy mildew. TAGS BERICHT AKAD LANDWIRT WISS DDR Berlin 291: 373-376.
GULYA,T.J., J.F. MILLER, F. VIRÁNYI , W.E. SACKSTON (1991) Proposed internationally standardized technique for race identification of Plasmopara halstedii. HELIA 14(15): 11-20.
GULYA,T.J., W.E. SACKSTON, F. VIRÁNYI, S. MASIREVIC, K.Y. RASHID(1991) New races of the sunflower downy mildew pathogen (Plasmopara halstedii) in Europe and North and South America. J PHYTOPATHOL 132: 303-311.
VIRÁNYI F. (1991) Races of Plasmopara halstedii and the possibilities of control. NÖVÉNYVÉDELEM 27: 241-244. (in Hungarian)
VIRÁNYI,F., S. MASIREVIC (1991) Pathogenic races of sunflower downy mildew in Europe: present state, problems and prospects. HELIA 14(15): 7-10.
VIRÁNYI,F., G. OROS (1991) Developmental stage response to fungicides of Plasmopara halstedii (sunflower downy mildew). MYCOL RES 95: 199-205.
ZAHKA,Gloria, F. VIRÁNYI (1991) Axenic culture of the downy mildew fungus Plasmopara halstedii in Agrobacterium rhizogenes-induced roots of sunflower (Helianthus annuus). CAN J BOT 69: 2709-2715.
VIRÁNYI F., BALÁZSY S. (1992) Factors affecting the sexual reproduction of sunflower downy mildew. ACTA ACAD PAEDAGOG NYÍREGYH Tom 13/B: 65-72. (in Hungarian)
VIRÁNYI,F., T.J. GULYA (1995) Inter-isolate variation for virulence in Plasmopara halstedii (sunflower downy mildew) from Hungary. PLANT PATHOL (Oxford)44: 619-624.

WALCZ,Ilona, F. VIRÁNYI (1996) Resistance of sunflower to downy mildew races 1, 3 and 4. HELIA 19(24): 93-98.
GULYA,T.J., D. TOURVIEILLE de LABROUHE, S. MASIREVIC, Annette PENAUD,K. RASHID, F. VIRÁNYI (1998) Proposal for standardized nomenclature and identification of races of Plasmopara halstedii (sunflower downy mildew). In:Proc. ISA Symposium III Sunflower Downy Mildew, Fargo (ND, USA) 13-14 January 1998, pp. 130-136.
KORMÁNY,Aranka, F. VIRÁNYI (1998) Studies on the virulence and aggressiveness of Plasmopara halstedii (sunflower downy mildew) in Hungary. Proc. 49th International Symposium on Crop Protection, Gent, 6 May, 1997, MEDED FAC LANDBOUW BIOL WETENSCHAP UNIV GENT 62 (3b): 911-915.
VIRÁNYI,F. (1998) The sunflower - Plasmopara halstedii pathosystem: natural and artificial coevolution. ISPP DOWNY MILDEWS NEWSL 10: 8.
VIRÁNYI,F. (1998) Research on Plasmopara halstedii: recent findings and further needs.In: Proc. ISA Symposium III Sunflower Downy Mildew, Fargo (ND, USA) 13-14 January 1998, p. 24.
WALCZ Ilona, Katalin BOGÁR, F. VIRÁNYI (2000) Study on an Ambrosia isolate of Plasmopara halstedii. HELIA 23 (33): 19-24.
BÁN Rita, VIRÁNYI F. (2004) Indukált rezisztencia a napraforgó-peronoszpórával szemben. NÖVÉNYVÉDELEM 40: 545-550.
KOMJÁTI H., BAKONYI J., VIRÁNYI F: (2006) A napraforgó-peronoszpóra (Plasmopara halstedii) hazai izolátumainak izoenzim vizsgálata. NÖVÉNYVÉDELEM 42: 241-246.
KÖRÖSI K., VIRÁNYI F., BÁN R. (2007) Növényi aktivátorok hatása a napraforgó
peronoszpórás betegségére. NÖVÉNYVÉDELEM 43: 596-602.
KOMJÁTI, H., WALCZ, I., VIRÁNYI, F., ZIPPER, R., THINES, M., SPRING, O.
(2007) Characteristics of a Plasmopara angustiterminalis isolate from Xanthium strumarium. EUR J PLANT PATHOL 119: 421-428.
KOMJÁTI, H., BAKONYI, J., SPRING, O., VIRÁNYI, F. (2008) Isozyme analysis of Plasmopara halstedii using cellulose-acetate gel electrophoresis. PLANT PATHOL 57: 57-63.
KÖRÖSI K., LÁZÁR N., VIRÁNYI F. (2009) Resistance to downy mildew in sunflower induced by chemical activators. ACTA PHYTOPATHOL ENTOMOL HUNG 44: 1-9.

VIRÁNYI F., SPRING O. (2011) Advances in sunflower downy mildew research. EUR J PLANT PATHOL 129: 207-220.
KÖRÖSI K., BÁN R., BARNA B., VIRÁNYI F. (2011) Biochemical and molecular changes in downy mildew-infected sunflower trigged by resistance inducers. J PHYTOPATHOL 159: 417-418.

3. Conference proceedings:

VIRÁNYI,F. (1980) Limited manifestation of resistance in sunflowers to downy mildew. Proc. 9TH INT SUNFLOWER CONF Torremolinos, 1: 57-61.
MOHAMED,S.A., F. VIRÁNYI (1983) Host nutrition in relation to downy mildew development in sunflower. Proc. 10TH INT CONG PLANT PROT Brighton, 3: 956.
VIRÁNYI,F. (1988) Factors affecting oospore formation in Plasmopara halstedii. Proc. 12TH INT SUNFLOWER CONF NOVI SAD, 2: 32-37.
VIRÁNYI,F., T. SENDULA, Z. HORVÁTH, F. NÉMETH (1988) A rapid test for evaluating resistance to sunflower stem canker caused by Diaporthe/Phomopsis helianthi. Proc. 12TH INT SUNFLOWER CONF Novi Sad, 2: 115-118.
OROS,G., F. VIRÁNYI (1989) Szravnenije fungicidov primenajevüh protiv peronoszporoza podszolnecsnika, i predlozsenija po ih primeneniju v praktike. Szborn DOKL NAUCSN SZIMP Poznan, pp. 82-94. (in Russian)
GULYA,T.J., F. VIRÁNYI (1991) Races of downy mildew in Hungary and comparison of Apron tolerance between U.S. and Hungarian mildew isolates. Proc. NATN SUNFLOWER ASSOC RES WORKSHOP, Fargo, ND, pp. 6-7.
VIRÁNYI,F., T.J. GULYA, S. MASIREVIC (1992) Races of Plasmopara halstedii in Central Europe and their metalaxyl-sensitivity. Proc. 13TH INT SUNFLOWER CONF Pisa, 1: 865-868.
GULYA,T.J., F. VIRÁNYI (1994) Virulent new races of sunflower rust (Puccinia helianthi) from the Central Great Plains. Proc. NATN SUNFLOWER ASSOC RES WORKSHOP, Fargo, ND, pp. 94-98.
VIRÁNYI,F., T.J. GULYA (1994) Races of Plasmopara halstedii in Hungary. Proc. NATN SUNFLOWER ASSOC RES WORKSHOP, Fargo, ND, pp. 50-52.
VIRÁNYI,F., T.J. GULYA (1996) Expression of resistance in the Plasmopara halstedii - sunflower pathosystem. Proc. Symp. Disease tolerance in sunflower. 14th INT SUNFLOWER CONF Beijing, ISA Publ., pp. 14-21.
GULYA,T.J., F. VIRÁNYI, D. NOWELL, M.N. SERRHINI, K. AROUAY (1996) New races of sunflower downy mildew in Europe and Africa. Proc. NATN SUNFLOWER ASSOC RES WORKSHOP, Fargo, ND, pp. 181-184.
VIRÁNYI,F., T.J. GULYA (1996) Expression of resistance in the Plasmopara halstedii– sunflower pathosystem. Proc. SYMP DISEASE TOLERANCE in

SUNFLOWER. 14th INT SUNFLOWER CONF Beijing, ISA Publ. pp. 14-21.
VIRÁNYI,F., Ilona WALCZ (2000) Population studies on Plasmopara halstedii: host
specificity and fungicide tolerance. Proc. 15th INT SUNFLOWER CONF Toulouse, 2: I-155-I-161.
TOURVIEILLE DE LABROUHE,D., T.J. GULYA, S. MASIREVIC, A. PENAUD, K.Y.RASHID, F. VIRÁNYI (2000) New nomenclature of races of Plasmopara halstedii (sunflower downy mildew). Proc. 15th INT SUNFLOWER CONF Toulouse, 2: I-161-I-166.
VIRÁNYI,F. (2000) Metalaxyl-tolerance in Plasmopara halstedii: a new challenge. Proc.1st SYMP DFG FORSCHERGRUPPE "Wirt-Pathogen Interaktionen", pp. 17-21.
BÁN,R.,VIRÁNYI,F., NAGY,S., KÖRÖSI,K. (2004) Investigations of the induced resistance to Plasmopara halstedii. Proc. 16TH INT SUNFLOWER CONF Fargo, ND, 29 August – 2 September, 2004. Vol. 1, 89-92.
KOMJÁTI, H., BAKONYI, J. VIRÁNYI, F. (2004) Isozyme analysis: as a tool for characterizing subpopulations of Plasmopara halstedii. Proc. 16TH INT SUNFLOWER CONF Fargo, ND, 29 August – 2 September, 2004. Vol. 1, 93-97.
VIRÁNYI,F. (2008) Research progress in sunflower diseases and their management. Proc.
17TH INT SUNFLOWER CONF Cordoba, Spain, 8-12 June, 2008. Vol. 1, 1-12.
KÖRÖSI, K., F. VIRÁNYI**.** (2008) Molecular changes in downy mildew-infected sunflower
trigged by resistance inducers. Proc. 17TH INT SUNFLOWER CONF Cordoba, Spain, 8-12 June, 2008. Vol. 1, 157-161.