

# BIOGRAPHICAL DATA

Name and degree **DR. MARC VAN MONTAGU**

Born **10 November 1933**  
**Ghent, BELGIUM**

Address **VIB-INTERNATIONAL PLANT BIOTECHNOLOGY OUTREACH (IPBO)**  
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## PRESENT POSITION

- Emeritus Professor – Ghent University
- Founder and Chairman of VIB-International Plant Biotechnology Outreach, Ghent University

## ACADEMIC EDUCATION

- M.Sc. Chemistry; Organic Chemistry (Ghent University, 1955)
- PhD, Organic Chemistry/Biochemistry (Ghent University, 1965)

## PRESENT FUNCTIONS IN FUNDAMENTAL & APPLIED RESEARCH

- Advisor to the Flemish Institute for Biotechnology (VIB), Ghent, Belgium, since 1999
- Chairman of the Scientific Advisory Panel of FuturaGene (Israel/Brazil), since 2011
- Member of the Scientific Advisory Board CTC S.A. (Brazil), since 2015; and BGI/ICG (China), since 2016.

## PRESENT FUNCTIONS IN SCIENCE POLICY

- President of the Public Research & Regulation Initiative (PRRI), Delft, Holland and Brussels Belgium, since 2005

## FORMER EDUCATIONAL AND UNIVERSITY FUNCTIONS

- Director of the Bureau d'Étude, Technical School for the Nuclear Industry, Mol, Belgium (1956-1960)
- Full Professor, Molecular Genetics, Ghent University, Belgium (1985-1999)
- Assistant and Associate Professor Faculty of Medicine (Cytology), Ghent University (1961-1984)
- Professor (Cell Biology and Nucleic Acid Chemistry), Vrije Universiteit Brussel (VUB), Belgium (1973 – 1985)
- Director of the Department of Genetics, Ghent University-Flanders Institute for Biotechnology (VIB), Belgium (1979-1999)
- Part-time professor at the Free University of Brussels (VUB) (1972-1989)

## FORMER FUNCTIONS IN FUNDAMENTAL & APPLIED RESEARCH

- Member, Board of Directors and Scientific Advisor of Advanced Genetic Sciences (AGS), Oakland California, US, 1979-1986.
- Founder, Scientific Director and member of the Board of Directors of Plant Genetic Systems N.V., 1982 - 1996
- Founder and Member of the Board of Directors of CropDesign (Belgium), 1998 – 2004
- Member, Board of Directors of Avesthagen (Bangalore, India), 1999 – 2010
- Member, Science Advisory Committee/Council
  - Institute of Molecular Biology and Biotechnology (Heraklion, Crete)
  - International Advisory Board at King Abdulaziz University (Jeddah, Kingdom of Saudi Arabia), 2010-2012

- International Center for Genetic Engineering and Biotechnology (ICGEB), Trieste, Italy, 2000- 2013
- Alellyx (São Paulo, Brazil), 2003-2009
- CIB-CSIC (Centro de Investigaciones Biológicas), Madrid, Spain, 2007-2009
- Scientific Advisory Board of Instituto Tecnológico Vale (Brazil), 2013-2019
- Chair, Scientific Advisory Committee Danforth Center (St. Louis - USA), 1999 – 2010
- Member of the Board of Trustees of the International Institute of Tropical Agriculture (IITA) (Ibadan, Nigeria), 1991-1995
- Scientific Advisor
  - Tibotech (Belgium),
  - Extracta (Rio de Janeiro, Brazil), 1998-2008
- Biotechnology advisor
  - ICARDA (International Center for Agriculture Research in Dry and Arid Areas) (Aleppo, Syria), 1998-2006
  - Board of Governors and Scientific Advisory Board of Weizmann Institute of Science, (Rehovot, Israel), 2001-2010

## FORMER FUNCTIONS IN SCIENCE POLICY

- UNIDO Goodwill Ambassador for Agribusiness, 2015-2017
- President of EFB (European Federation of Biotechnology), 2003-2015
- President of BSBA (Black Sea Biotechnology Association), 2004-2014
- Belgian Representative in the Biosciences Steering Panel of EASAC (The European Academies Scientific Advisory Council), 2010-2014
- Member, Advisory Board (EGLS) of EU Commissioner Ph. Busquin, DG - Science and Technology, European Commission, 2000-2004
- Belgium Delegate at the International Council of Science (ICSU) (Paris), 1989-1996
- Chair of Cobiotech/ACOGEB, ICSU Bodies for Biotech Research, 1993-1996
- Board of Trustees of IITA (Ibadan, Nigeria), 1991-1996
- Selection Committee Member
  - King Baudouin International Development Prize, 1990-1998
  - L'Oréal-UNESCO For Women in Science (Paris, France), 1998-2015
  - Balzan Prizes, International Balzan Foundation (Milan, Italy), 2004-2016

## HONOURS

- Baron, title granted by Baudouin I, King of the Belgians – 1990
- EMBO fellow 1978
- Foreign Associate, The National Academy of Sciences of the USA - 1986
- Belgian Royal Academy of Sciences - 1987
- Academia Europea - 1989
- Agricultural Academy of Russia - 1991
- The Academy of Engineering of Sweden - 1992
- Agricultural Academy of France - 1992
- The Royal Academy of Overseas Sciences, Belgium -1997
- Italian Academy of Sciences Dei XL - 1998
- American Academy of Microbiology - 1999
- Third World Academy of Sciences (TWAS) - 2001
- Foreign correspondent, Brazilian Academy of Sciences - 2013
- Doctor Honoris Causa of the Universities of Helsinki (Finland) -1990; Compiegne (France) - 1995; Rio de Janeiro (Brazil) -1997; Liege (Belgium) - 1997; Brussels - ULB (Belgium) -1997; Habana (Cuba) - 1999; Sofia (Bulgaria) – 2004; UIMP, Santander (Spain) - 2015; Weizmann Institute (Israel) - 2018)
- Francqui Chair at the Catholic University of Louvain, Faculty of Medicine (Belgium) -1971- 1972; Free University of Brussels -ULB, Faculty of Sciences (Belgium) - 1986 -1987; and Catholic University of Louvain, Faculty of Sciences (Belgium) - 1994 - 1995
- Theodor Bücher Medal (FEBS) - 1999
- Iran Agriculture Gold Medal – 2015

## AWARDS

- Rank Prize for Nutrition (The United Kingdom) - 1987
- IBM-Europe Prize (France) -1988
- The Charles Leopold Mayer Prize (Academy of Sciences, France) - 1990
- Dr. A. de Leeuw-Damry-Bourlart Prize (five yearly prize of the Belgian National Fund for Scientific Research) - 1990
- Japan Prize (Japan) – 1998
- Elected by his peers and through independent polls conducted by Reed Exhibitions, a division of Reed Elsevier, as one of the Top 100 Living Contributors to Biotechnology - 2005
- Genome Valley Excellence Award 2009 (BioAsia, India) – 2009
- The World Food Prize – 2013
- Elected as one of the 100 visionaries who continue to reshape biotechnology - and the world, Scientific American Worldview - 2015

## ACHIEVEMENTS

### *Fundamental Research*

- Discovery of the Ti-plasmid, functional mapping of the Ti-plasmid and its role in the mechanism of gene transfer from *Agrobacterium tumefaciens* to plants
- Pioneering contributions on plant gene discovery and regulation
- Major contributions in the studies of plant molecular mechanisms of response to abiotic stresses (high light, ozone, cold, salt and drought)
- Major contributions in the identification of Arabidopsis genes involved in growth, development and flowering.
- Mentor of more than 100 PhD students from all over the world

### *Applied Research*

- Development of methods to alter *Agrobacterium* into an efficient delivery system for gene engineering in plants
- Founder of two start-up biotech companies - Plant Genetic Systems (PGS) and CropDesign
- Construction of the first plants producing the *Bt* (*Bacillus thuringiensis*) insecticide (at PGS)
- Construction of the first herbicide tolerant plants (at PGS)
- Engineering of poplar trees with improved pulping qualities (altered lignin composition)

### *Publications*

- Scientific journals with review process: 651; Chapters in books and proceedings of conferences with review process: 262; Journals without review process: 259; patent applications: 36 (Total list of publications <https://biblio.ugent.be/person/801000030672>).
- Ranked as the most cited scientist in the field of Plant & Animal Science 1995-2004.
- Since 1982 the totality of the scientific publications has received 109,816 citations (*h*-index: 180) (Google Scholar 01/09/2021). Web of Sciences (01/09/2021) scores 70,141 citations for 766 scientific articles (*h*-index: 138).