

# BIOGRAPHICAL DATA FORM

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

Born **10 November 1933**  
**Gent, BELGIUM**

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## PRESENT POSITION

- Emeritus Professor – Ghent University
- Founder and Chairman of IPBO - Institute for 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
- Member of the Agriculture Food Security and Climate Change Joint Programming (FACCE-JPI) Stakeholder Advisory Board, EU
- Chairman of the Scientific Advisory Panel of Futuragene
- Member of the Scientific Advisory Board of ITV – Instituto Tecnológico Vale (Brazil)
- Member of the Scientific Committee of CTC – Centro de Tecnologia Canavieira S.A (Brazil)

## PRESENT FUNCTIONS IN SCIENCE POLICY

- President of BSBA (Black Sea Biotechnology Association)
- President of the Public Research & Regulation Initiative (PRRI), Delft, Holland and Brussels Belgium
- Selection Committee Member, L'Oréal-UNESCO "For Women in Science", Paris, France
- Selection Committee Member, "Balzan Prizes", International Balzan Foundation, Milan, Italy
- UNIDO Goodwill Ambassador for Agrobusiness
- Member of the Executive Board of the European Federation Biotechnology (EFB)
- Goodwill Ambassador for EFB

## FORMER EDUCATIONAL FUNCTIONS

- Director of the Bureau d'Étude, Technical School for the Nuclear Industry, Mol, Belgium (1956-1960)

## FORMER UNIVERSITY FUNCTIONS

- Full Professor ('gewoon hoogleraar'), molecular genetics, Ghent University, Belgium (until retirement on October 1, 1999)

- Director of the Department of Genetics, Flanders Institute for Biotechnology (VIB), Belgium (until retirement on October 1, 1999)
- Part-time professor at the Free University of Brussels (VUB) (until 1989)

#### FORMER FUNCTIONS IN FUNDAMENTAL & APPLIED RESEARCH

- 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 of the SAC (Science Advisory Committee) the IITA (International Institute of Tropical Agriculture) (Ibadan, Nigeria), 1989-1995
- Chair, Scientific Advisory Committee Danforth Center (St. Louis - USA), 1999 - 2010
- Scientific Advisor to Tibotech (Belgium)
- Scientific Advisor to Extracta (Rio de Janeiro, Brazil), 1998-2008
- Member of the Science Board of Alellyx (São Paulo, Brazil), 2003-2009
- Biotechnology advisor to ICARDA (International Center for Agriculture Research in Dry and Arid Areas) (Aleppo, Syria)
- Scientific advisor to CIB-CSIC (Centro de Investigaciones Biológicas), Madrid, Spain.
- Member of the Board of Governors and of the Scientific Advisory Board of the Weizmann Institute of Science, (Rehovot, Israel), 2001-2010
- Member of the SAC (Science Advisory Committee) of the Institute of Molecular Biology and Biotechnology (Heraklion, Crete)
- Member of the International Advisory Board at King Abdulaziz University (Jeddah, Kingdom of Saudi Arabia), 2010-2012
- Member of the Board of Directors of Avesthagen (Bangalore, India), 1999 – 2010
- Member of the council of Scientific Advisor of the International Center for Genetic Engineering and Biotechnology (ICGEB), Trieste, Italy, up to 2013

#### FORMER FUNCTIONS IN SCIENCE POLICY

- President International Council of Science (ICSU), Paris (1986-1988)
- Chair of Cobiotech/ACOGEB, ICSU Bodies for Biotech Research (1996-2003)
- Board of Trustees of IITA (Ibadan, Nigeria)(1991-1996)
- Selection Committee Member, 'King Baudouin International Development Prize' (1990-1998)
- Advisory Board (EGLS) of EU Commissioner Ph. Busquin, DG - Science and Technology, European Commission, Brussels, Belgium (2000-2004)
- President of EFB (European Federation of Biotechnology) - central office Barcelona, Spain (2003-2015)
- Belgian Representative in the Biosciences Steering Panel of EASAC- (The European Academies Scientific Advisory Council). Leopoldina Academy, Halle, Germany

#### HONORS

- Baron, title granted by Baudouin I, King of the Belgians - 1990
- 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; Compiègne (France) - 1995; Rio de Janeiro (Brazil) -1997; Liege (Belgium) - 1997; Brussels - ULB (Belgium) -1997; Habana (Cuba) - 1999; Sofia (Bulgaria) – 2004; and UIMP, Santander (Spain) - 2015.
- Francqui Chair at the Catholic University of Louvain, Faculty of Medicine (Belgium) -1971- 1972; Free University of Brussels, Faculty of Medicine (Belgium) - 1986 -1987; and Catholic University of Louvain, Faculty of Sciences (Belgium) - 1994 - 1995

- Theodor Bücher Medal (FEBS) - 1999
- Iran Agriculture Gold Medal - 2015

## PRIZES

- 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
- Genome Valley Excellence Award 2009 (BioAsia, India) – 2009
- The World Food Prize – 2013

## ACHIEVEMENTS

### *Fundamental Research*

- Discovery of the gene transfer mechanism between agrobacterium tumefaciens and 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 (cell cycle)

### *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 Crop Design)
- Construction of the first plants producing the *Bt* (bacillus thuringensis) insecticide (at PGS)
- Construction of the first herbicide tolerant plants (at PGS)
- Engineering of poplar trees with improved pulping qualities (altered lignin composition)
- Included in Reed Exhibitions' list of the Top 100 Living Contributors to Biotechnology
- Included in the 2015 Scientific American Worldview of the 100 visionaries who continue to reshape biotechnology - and the world

### *Education*

- Education of more than 100 PhD students, several of them now occupying leading positions in plant biotechnology research, business or management all over the world

### *Publications*

- Scientific journals with review process: 623; Chapters in books and proceedings of conferences with review process: 256; Journals without review process: 248. (Total list of publications downloadable at: <http://ipbo.vib-ugent.be/team/marc-van-montagu>)
- Ranked as the most cited scientist in the field of Plant & Animal Science until 2004
- The totality of the scientific publications has received more than 50.000 citations - h-index: 125