

R. PILLOTON - CURRICULUM VITAE

Name
Institute

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Birth

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[Istituto per l'inquinamento atmosferico \(IIA\),](#)
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<http://www.biosensing.net> [More...](#) MYPAGE@CNR.IT [Selected papers](#)
01/02/1960 Rome, Italy



Higher
Education

Degree in Chemistry (110/110 cum laude), October 1986, La Sapienza, University of Rome, Italy. Thesis: Electrochemical Biosensors for Food

Professional
qualification

Analytical Chemistry (*October 1986*)

Skills &
activities

Bioanalytical methods based on electrochemical biosensors for food (white and red wines, grapes, must and juice fruits) and environment. Electrochemical biosensor development for glucose, lactose, lactic acid, pyruvic acid, choline, acetylcholine, phenolic compounds, lipids, alcohols, organophosphoric and carbamic pesticides, herbicides. *Environmental Analytical Chemistry*. *Screen Printing*. Mediated Electrochemistry, direct electron transfer. Inhibition Biosensors. Pesticide Toxicity. *Enzyme Inhibitors*: cholinesterase inhibitors, *PSII inhibitors*. Photosynthetic Biosensors. Enzyme biosensors. Microbial biosensors. Flow through ion selective electrodes for potassium. Screen printed electrodes. Application of the above mentioned sensors to artificial pancreas monitoring (Betalike Ansaldo ESAOTE), food analysis and process monitoring. Flow injection analysis and its application in the field of biosensors and process monitoring. Hollow fibre membrane bioreactor for lactose hydrolysis. Molecular Imprinted Polymers for Integrated Chemical Sensors. Lab on a chip. Electrode microarray. Nanostructured electrodes and nano electrode ensembles (NEE). Surface functionalisation. Covalent immobilisation of biomolecules. Electrochemical addressing of engineered biological molecules on micro-electrode arrays and their oriented and reversible immobilisation. Ni-NTA chelators. (His)₆ Tag. Self assembled monolayers, *surface science*. [Selected papers](#)

Funded
projects:
Partnership
and
leadership

- Responsible for CNR of Bilateral Contract between Italy and Romania (2006)
- Responsible for CNR of Bilateral Contract with TUBITAK (Turkey, 2003)
- Responsible for ENEA of μ -sys project: FIRB, Fondo Italiano per la ricerca di base (2003-2005)
- Participant to EU Project: EU FW5 PROSEPPROMILK: ROBust Chemical Sensors and biosensor for raPId on-line identification of fReshly cOLlected MILK (2002-2004)
- Responsible of CalPark Project and teacher of a Higher education course on Biosensors (University of Calabria, 2002)
- Responsible of the Enea Target Project P878 COSMIC: Coupling Smart Molecules Into Chips
- Responsible for ENEA of SIMOFE Project: "Sistema Multisensore per il monitoraggio dei processi fermentativi nella produzione di formaggi tipici regionali", Progetto PROBIO, Fondi Europei di Sviluppo Regionale (FESR, 1999-2001)
- Participant to Project: LG 950980 NATO: "Isolated Photosystem II Complex as a biosensor for monitoring photosynthetic herbicides" (1998-2000)
- Participant to EU Project: BRITE-EURAM 95-1745: MIMICS: Molecularly Imprinted Materials for Integrated Chemical Sensors (1995-1997)
- Participant to EU project: EV5V-CT94-0358: "Development and validation of s-triazine and pyrethroid specific immunosensor" (1994-1996)

Conference
chair

He was the chairman of 2 national and 4 international conferences

Referee of
int. journals

Guest editor of international journals (4 issues). Reviewer of International Journal on Environmental Analytical Chemistry, Food Chemistry, Bioelectrochemistry, Journal of Molecular Catalysis B: Enzymatic, Talanta, Materials Science and Engineering C, Analytica Chimica Acta, Sensors & Actuators: B: Chemical, Colloids and Surfaces B: Biointerfaces, Sensors, e-Journal on Biotechnology, Bioelectrochemistry, RSC Advances, Food Technology and Biotechnology, Analytical Letters, Journal of Sensors, International Journal of Electrochemistry, Journals of Hindawi Publishing Corporation, Applied Clay Science.

Training

He was the tutor of several (23) degree and PhD theses from abroad and from Italian Universities, national and international fellows (8). Higher education and specialization courses in Biotechnology and invited lessons and lectures on biosensors at the universities of Pavia, Pisa, Rome, Salerno, Trento, Turin, Ca' Foscari Venice, Midland, Izmir (Ege University, Turkey), Pammukalè (Turkey), CEA (Orsay, France), Českých Budějovicích (Czech Rep.). He also taught courses on Environmental Analytical Chemistry at University of Pavia and at University of Trento as Adjunct Professor (Professore a contratto)

Chronology

- 2016 - 2017 Chair of BBMEC 2017 – CNR Rome
- 2015 Editorial Board of [Biosensors](#)
- 20/04/2015 Elected Vicepresident of [International Association on Environmental Analytical Chemistry](#)
- June 2014 Finalist in the [EDISON-Start award](#) with the project [DRESS-Code](#) together with [AMD L](#)
- 2014 - 2018 Elected member of the [Executive Committee of IAEAC](#)
- 2014 - 2015 Member of the Scientific Committee of [BBMEC 2015](#) - University of Regensburg
- 2013 - today Senior Researcher @ CNR – IIA (Institute on Atmospheric Pollution)
- 2013 - today Associate Researcher @ INAF – IAPS Institute for Space Astrophysics and Planetology
- 2012 Senior Researcher @ CNR – IFN (Institute for Photonics and Nanotechnology)
- 2012 Member of the International Advisory Board at [ISEAC 37 May 22nd-25th 2012 Antwerp \(Belgium\)](#)
- 2010 Chairman of [“The 36th International Symposium on Environmental Analytical Chemistry”](#) held in Rome October 5th-9th 2010.
- 2010 Elected member of the [Executive Committee of IAEAC](#)
- 2010 Adjunct Professor for the Master Course on “Nano on Micro” @ University of Trento
- 2009 - 2012 Senior researcher at ENEA
- 2007 Chairman of [“The 8th International Workshop on Biosensors and Bioanalytical \$\mu\$ -Techniques in Environmental and Analytical Chemistry” held in Goa \(India\) October 3th-6th](#)
- 2006 Responsible for CNR of Bilateral Contract between Italy and Romania
- 2006 Adjunct Professor for the Master Course on “Nano e Microsistemi elettromeccanici” @ Istituto Trentino di Cultura (ITC)
- 2006 Elected member of the [Executive Committee of IAEAC](#)
- 2004 Chairman of [“The 6th International Workshop on Biosensors and Bioanalytical \$\mu\$ -Techniques in Environmental and Analytical Chemistry”](#) held in Rome October 8th-12th
- 2003 Responsible for CNR of Bilateral Contract with TUBITAK (Turkey)
- 2003 Responsible for ENEA of μ -sys project: FIRB, Fondo Italiano per la ricerca di base
- 2002 Responsible for ENEA of Regional Project (POR Lazio): WINEOCRATOX
- 2002 Participant to EU Project: EU FW5 PROSEPMILK: ROBust Chemical SENSors and biosensor for raPid on-line identification of fReshly cOLlected MILK
- 2002 Responsible of CalPark Project and teacher of Higher Education course on Biosensors (University of Calabria)
- 2001 Responsible of the Enea Target Project COSMIC: Coupling Smart Molecules Into Chips
- 2000 Adjunct Professor of Environmental Analytical Chemistry at Università di Pavia

- 1999 Responsible for ENEA of SIMOFE Project: "Sistema Multisensore per il monitoraggio dei processi fermentativi nella produzione di formaggi tipici regionali", Progetto PROBIO, Fondi Europei di Sviluppo Regionale (FESR)
- 1999 Chairman of the 2nd Workshop on Chemical Sensors and Biosensors -18-19/03/1999
- 1998 Participant to Project: LG 950980 NATO: "Isolated Photosystem II Complex as a biosensor for monitoring photosynthetic herbicides"
- 1997 - today Biosensing.net Website started
- 1997 Visiting scientist at Thomson Paris (FR), Dr.F.Lipskier
- 1996 Visiting scientist @ Pure & Applied Chemistry Laboratory - Prof. Mossbach, Lund (SE)
- 1995 Participant to EU Project: BRITE-EURAM 95-1745: MIMICS: Molecularly Imprinted Materials for Integrated Chemical Sensors.
- 1994 Visiting scientist at Institut fur Technische Biochemie, Prof. R.Schmidt, Stuttgart (DE)
- 1994 Visiting scientist at GBF, Gesellschaft fur Biotech. Forschung, Prof.U.Bilitevsky, Braunschweig (DE)
- 1994 Participant to EU project: EV5V-CT94-0358: "Development and validation of s-triazine and pyrethroid specific immunosensor"
- 1993 Chairman of a one day national workshop on biosensors at ENEA
- 1991 - 2009 Researcher at ENEA, Via Anguillarese 301, 00060, Santa Maria di Galeria Roma
- 1991 Winner of PhD fellowship in Analytical Chemistry at University of Rome "La Sapienza"
- 1991 Grant (ENEA) Automated glucose biosensor based on FIA for lactose hydrolysis in milk
- 1990 Grant (ENEA) Automated glucose biosensor based on FIA for lactose hydrolysis in milk
- 1989 Grant (ENEA) funded by IDRONAUT, Brugherio (MI): "ISE for K⁺, Ca²⁺, Na⁺ and pH for kidney dialysis treatment"
- 1988 Grant (ENEA) Hollow fiber membrane enzyme reactor for lactose hydrolysis in diary wastes
- 1987 - 1988 Grant (University of Rome Tor Vergata), funded by Ansaldo - ESAOTE Elettronica Biomedicale, Genova: "Sensor and biosensor development for artificial pancreas "
- 1986 - 1987 Grant (University of Rome Tor Vergata) funded by Ansaldo - ESACONTROL Elettronica Biomedicale, Genova: "Sensor and biosensor development for artificial pancreas "
- 1986 Professional qualification in Analytical Chemistry
- 1986 Degree in Analytical Chemistry (110/110 cum laude) at the Un. of Rome (Italy) with the thesis entitled: "Electrochemical Biosensors for Food" and Prof.M.Mascini as referent.
- 1974 - 1978 Secondary school at Liceo Scientifico Archimede, Sez.B, Roma