

## **Synthetic Curriculum Vitae of Riccardo Basosi**

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Google Scholar: <https://scholar.google.com/citations>

H-Index 47 - citations 6807 i10-index 154

### **Education**

**Maturità Classica July 1965, Chemistry Master of Science degree July 1970 (Florence- Italy),**

**Specialization in Physical Chemistry October 1974 (Siena-Italy).**

### **Positions held at present**

- **Senior Full Professor of Physical Chemistry** since October 2017-
- **Italian Permanent Representative for Energy in HORIZON 2020 Program Committee**, since July 2013
- **MUR Delegate for EU SET (Strategic Energy Technology) Plan** since July 2013-
- **Vice President CTS ENEA** since February 2021
- CORRISPONDANT ACADEMIC OF SCIENCES ACADEMY INSTITUT OF UNIVERSITÀ DI BOLOGNA SINCE JULY 2018
- SENIOR ASSOCIATED ISC CNR SINCE 2016 RE-CONFIRMED JAN 1, 2020
- SENIOR ASSOCIATED ICCOM CNR SINCE 2017 RE-CONFIRMED JAN 1, 2020

### **Academic Positions held in the recent past**

- **Full Professor of Physical Chemistry** at University of Siena, Italy since 1994 (Associate since 1980, Lecturer since 1976) to October 2017
- **Vice Rector for Energy**, University of Siena (appointed by 5 different Rectors) since 1996 to October 2017
- **Chairman of the Chemistry Department** (University Siena, Italy), elected twice 2002-2008
- **President of the Board of Department Directors** (University of Siena, Italy), elected twice 2003-2008
- **President of the PhD School in Chemical and Pharmaceutical Sciences** elected twice 2008-2013
- President of the Italian Chemical Society, Toscana Section 2010-2013
- Member of the board of Directors of CSC (Center for Complex Systems Studies), University of Siena, 2002-2007
- Dean of Chemistry and Member of Board of Faculty SMFN (University of Siena) 1996-2003
- President of Master Degree in Chemistry (Faculty of SMFN) 1996-2003
- President of National Committee for European Certification System in Energy Management (SECEM), Italian Federation for Rationale use of Energy, 2010

### **Academic Positions held abroad in the past**

- **Visiting Professor of Biophysics at Medical College of Wisconsin (USA)** 1982-1985
- **Visiting Professor of Thermodynamics (California State University, Sonoma, USA)**, 1981
- Italian delegate for the European Project COST Physics Action P15 "Advanced Paramagnetic Resonance Methods in Molecular Biophysics" 2003-2008

### **INSTITUTIONAL APPOINTMENTS in the past**

- **Scientific Advisor of Italian Presidency of Council of Ministers**, 2007-2008
- **Member of technical table of Italian "PRESIDENZA DEL CONSIGLIO DEI MINISTRI" on "Decarbonization of Italian Economy "** 2015-2017
- **ENERGY Expert for MINISTER MIUR AT G7 SCIENCE (BERLIN, OCTOBER 2015, KYOTO, APRIL 2016 AND BOLOGNA/TORINO, SEPTEMBER 2017).**

## Europass

- **NATIONAL MIUR DELEGATE IN MISSION INNOVATION INTERMINISTERIAL TASK FORCE** (COORDINATED BY MISE) APPOINTED BY MINISTER MIUR, SINCE FEBRUARY 2017 UNTIL TODAY
- **NATIONAL EXPERT EGRD (EXPERTS' GROUP ON R&D PRIORITY SETTING) FOR IEA/OCSE WITH DECREE MISE OF OCTOBER 2016 UNTIL DECEMBER 2018**
- **MEMBER OF CONSIGLIO TECNICO/SCIENTIFICO OF ENEA SINCE OCTOBER 2017**
- **VICE PRESIDENT of CONSIGLIO COMUNALE DI FIRENZE from 1999 to 2004**
- **Founder Member di Legambiente in 1980** and **PRESIDENT** Elected of Scientific Committee of LEGAMBIENTE TOSCANA since 1985 to 1999
- **President** of Scientific Committee of Federesco (Italian Association of ESCOs) 2012-2018

## Academic Memberships, Awards and Prizes

- **2014 GOLD MEDAL E. TIEZZI RECEIVED FROM THE ITALIAN CHEMICAL SOCIETY (SCI) FOR SIGNIFICANT ACHIEVEMENTS IN THE FIELDS OF ENERGY AND ENVIRONMENT**
- **2014 ENERGY GLOBE AWARD FROM AUSTRIAN GOVERNMENT FOR THE PATENT OF A OFF-GRID MODULE**
- **"GRANDPARENT" OF THE SECEM (EUROPEAN CERTIFICATION SYSTEM IN ENERGY MANAGEMENT) 2010**
- Fellow of Royal Society of Chemistry, since 1988
- Member of American Chemical Society, since 1996
- Member of International Advisory Board of International Society of EPR, since 1991
- Member of NYAS (New York Academy of Sciences)
- Member of National Committee of Italian Physical Chemistry Association, 1987-1993
- Member of ISEE (International Society for Ecological Economics)
- Member of AAAS (American Association for Advancement of Science)
- Member of ISES (International Solar Energy Society)
- Member of IAEE (International Association Energy Economics)
- Member of FIRE (Italian Federation for Rational Use of Energy)

## MEMBER OF EDITORIAL BOARD OF INTERNATIONAL JOURNALS

- **MASTERHEAD OF INTERNATIONAL JOURNAL OF ENERGY & TECHNOLOGY SINCE 2009-**
- **SCIENTIFIC ADVISORY BOARD OF OPEN RESEARCH EUROPE SINCE 2020**
- **EDITORIAL BOARD OF "QUALE ENERGIA" SINCE 2000-**
- **EDITORIAL BOARD INTERNAT. JOURNAL OF SOLAR ENERGY RESEARCH (JSER) SINCE 2016-**
- **EDITORIAL BOARD OF ENERGIES SINCE 2020-**
- **EDITORIAL BOARD OF HYLIGHTS IN SUSTAINABILITY SINCE 2020-**
- **EDITORIAL BOARD OF SUSTAINABILITY SINCE 2019-**
- **EDITORIAL BOARD OF BIOCATALYSIS SINCE 2013-**
- **GUEST EDITOR OF ENERGY POLICY 2015-2016**
- **GUEST EDITOR OF ENERGY 2017-2018-2019**
- **GUEST EDITOR OF SUSTAINABILITY 2019-2020**

## REFeree OF INTERNATIONAL JOURNALS IN THE AREA OF PHYSICAL CHEMISTRY AND ENERGY:

*APPLIED MAGNETIC RESONANCE; AGRICULTURE, ECOSYSTEM AND ENVIRONMENT; APPLIED ENERGY; BIOCHEMISTRY; BIOMASS AND BIOENERGY; BIOPHYSICAL CHEMISTRY; BUILDING AND ENVIRONMENT; BIOCHIMIE OPEN; CHEMOSPHERE; CHEMICAL ENGINEERING SCIENCE; DALTON TRANS.; ENVIRONMENTAL SCIENCE & TECHNOLOGY; ECOLOGICAL ECONOMICS; ECOLOGICAL ENGINEERING; ECOLOGICAL INDICATORS; ENERGY POLICY; ENERGY; ENERGY CONVERSION AND MANAGEMENT; GREEN CHEMISTRY; INORG. CHEMISTRY; INORG. CHIM. ACTA; J.A.C.S.; J. OF BIOTECHNOLOGY; J. PHYS. CHEM; J. CHEM. SOC.; J. OF ENVIRONMENTAL MANAGEMENT; J. OF MAGN. RES.; J. OF INORG. BIOCHEMISTRY; J. OF COORDINATION CHEMISTRY; J. OF CLEANER PRODUCTION; J. OF INDUSTRIAL AND ENGINEERING CHEMISTRY; J. OF MOLECULAR CATALYSIS B:*

*ENZYMATIC; MATERIALS CHEMISTRY AND PHYSICS; P.C.C.P.; PROCESS BIOCHEMISTRY; RENEWABLE ENERGY; RENEWABLE AND SUSTAINABLE ENERGY REVIEWS; SOLAR ENERGY MATERIALS AND SOLAR CELLS; TALANTA; TRANSPORTATION RESEARCH PART A: POLICY AND PRACTICE.*

### List of Experiences of Coordination and Management of Research Projects & People (selection 2006-2017)

- **SCIENTIFIC RESPONSIBLE** OF THE OPERATIVE UNIT OF THE DEP. OF BIOTECH. CHEMICAL AND PHARMACEUTICAL SCIENCE, UNIVERSITY OF SIENA, IN THE PROJECT **“System of advanced multilayer elements based on surfaces and innovative nanostructured materials for a sustainable and energetically efficient building”** SELFIE – financed in the frame FAR-FAS 2014
- **SCIENTIFIC RESPONSIBLE** OF THE OPERATIVE UNIT OF THE DEP. OF BIOTECH. CHEMICAL AND PHARMACEUTICAL SCIENCE, UNIVERSITY OF SIENA, IN THE PROJECT **“Continuous core amorphous transformer”** TANC – financed in the frame POR FESR 2014-2015
- National Coordinator and Responsible of the O.U. of Siena of the two projects financed by MIUR **PRIN Project 2007-2R7WWA “Structure-activity relationships of oxidative enzymes for biotransformations”** and **2009-STNWX3 “Catalytic mechanism and structural determinants of enzymatic properties of oxidases, peroxidases and oxigenases usable in biotechnological processes and in bio-recovery”**
- Scientific Responsible O.U. University of Siena, in the project **“High energy efficiency agro-industrial System for eco-friendly production of renewable materials and energy for land recovery”** financed by MIUR in the frame of SPEME ENERBIOCHEM PON Campania 2007-13
- Scientific Responsible of O.U. Dept. of Biotechnology, Chemistry and Pharmacy, University of Siena, in the EU Project EU/RT **“Waste & Energy: Project and Assessment – WEPA”** financed by call R&S 2012 POR CReO 2007-2013 1.5a and 1.6, in collaboration with ARCHA SRL Laboratories, University of Pisa and other partners
- Scientific Responsible of O.U. Dept. of Biotechnology, Chemistry and Pharmacy, University of Siena, in the EU Project **“Financialisation, economy, society and sustainable development FESSUD”**, UE supported by 7° Framework Programme Project n.: 266800-FP7-SSH-2010-1- FESSUD” in collaboration with Leeds University and other 23 EU partners.
- Scientific Responsible of O.U. University of Siena, in the **EU Project “Sustainable flame retardant technical textile from recycled polyester- SUPERTEX”**, financed by Contract n. ECO/10/277225 2011-2014 CIP-EIP-Eco-Innovation 2010, in collaboration with Tecnotex.
- Scientific Responsible of O.U. University of Siena, in the Project Industria 2015-Nuove tecnologie per il Made in Italy **“Innovative self-cleaning textile maintainable through simplified industrial washing cycle for work-wear applications - EASYWASH”** financed by contract 00030MI01/11-2011-2014 - Ministero sviluppo economico and in collaboration with Tecnotessile, Lavanderia Alto Adige and 6 other partners at national level.
- Coordinator of the EU/RT Project Mechos **“Industrial Chemical Innovative Methods: Use of bio-inorganic oxidative systems against pollution from wastewaters”**, contract 1785/07 mis D4 POR Ob 3, in collaboration with UNIFI UNIFI and TECNOTEX.
- Scientific Responsible and Coordinator of the EU/RT Project **“Mappaggio termico per l’uso razionale ed efficiente dell’energia nella regione Toscana – MATURE”**, financed in the frame of “Research and Innovation in Environmental Field”, 2010-2012
- Coordinator and Scientific Responsible of Project (PAR University of Siena) **“Structure and Properties of Metal Complexes with Ligands of Biological Interest and Metalloproteins”**, 2006-2008
- EU Project SOPHIED **“Sustainable Bioprocesses for the European Colour Industries”**, contract E.C. n: NMP2-CT-2004-505899 - 2004/2008 Responsible for UNISI OU in collaboration with UNINA OU and other 27 partners of 12 EU countries.
- EU Project BISCOL **“Bioprocessing for sustainable production of coloured textiles”** Contract n 256112 CIP-Ecoinnovation 2010-2013 in collaboration with Tecnotex and other 5 partners of 3 EU countries
- EU/RT Project BIODETEX **“Enzymatic Bioremediation of Industrial Textile Dyes”** contract 8227/04 in collaboration with UNIFI OU and TECNOTEX.

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- Scientific Responsible of O.U. University of Siena, in the Project EU/RT “**Assessment of the management of the most relevant waste cycles in Tuscany Region under technical, economics, energetic and environmental profile - COMPARE**” financed by B2-RT 2009 “Research and Innovation in Environmental Field” in collaboration with Scuola Superiore Sant’Anna Pisa, University of Pisa (Dipartimento di Chimica Industriale, Dipartimento di Ingegneria Chimica e Scienze dei Materiali) and Università di Firenze (Dipartimento di Meccanica e Tecnologie Industriali)
- Scientific Responsible of EU/RT Project “**Design, synthesis and applications of new organic sensitizers for non-conventional photovoltaic cells- FOTOSENSORG**” financed by Tuscany Region in the frame of POR CREO FSE 2010-2013 in collaboration with CNR-ICCOM Firenze, Exergy
- Scientific Responsible of O.U. University of Siena, in the Project EU/RT “**Electric and thermal distributed Power Production Systems from geothermal sources at low enthalpy**” “BT-GEO” financed by Tuscany Region in the frame of POR CREO FSE 2007-2013 in collaboration with University of Firenze, Fabbrica del Sole (Arezzo),CEGL (Pisa).
- Scientific Responsible and Member of Technical Committee of Network Plan in the Project “**Gestione di un sistema energetico locale di produzione da fonte rinnovabile, integrata con sistemi di accumulo, orientata all’ottimizzazione tecnico-economica e alla fornitura di servizi di rete mediante sistemi “smart grids” – SMART GRIDS NAVICELLI**” financed by RT in the frame of POR CREO FSE 2007-2013 in collaboration with: Sviluppo Navicelli spa, University of Pisa, Enel, Pin srl, University of Firenze, SSDI automazione industriale srl, CSA centro servizi artigianato – 2010-2012
- Scientific Responsible of O.U. University of Siena, in the Project “**Studio di nuove soluzioni e nuovi processi industriali per lo sviluppo di metodi di riciclaggio e riuso dei residui plastici delle automobili**” – REAUTO – financed by Tuscany Region – partners: University of Firenze (coordinator) and Pisa – 2008-2010
- IS CRA/CINECA Project HP 10C0HMGL 2011 “**Computational characterization of redox-active protein radicals involved in the Long Range Electron Transfer of Fungal Versatile Peroxidases**”.
- Responsible of University of Siena PRIN Project 2004-2006 “**Spectroscopic characterization of Metal Ions Complexes with Aminoacids, alpha-Idrossiacids and synthetic and natural Peptides**” MIUR, in collaboration with University of Parma , University of Padova
- Scientific Responsible of O.U. University of Siena, in the Project “**S.I.EN.A – progetto pilota per lo sviluppo integrato delle energie rinnovabili dal settore agricolo - Filiera pilota dell’olio vegetale tal quale**” with Agenzia Regionale per lo Sviluppo e l’Innovazione nel Settore Agricolo - Forestale (ARSIA) – financed by Fondazione MPS and Regione Toscana – 2008-2010
- Scientific Responsible of O.U. University of Siena, in the Project “**S.I.EN.A – progetto pilota per lo sviluppo integrato delle energie rinnovabili dal settore agricolo - Filiera pilota del Biodiesel**” with Agenzia Regionale per lo Sviluppo e l’Innovazione nel settore Agricolo – Forestale (ARSIA) – financed by fondazione MPS and Regione Toscana – 2007-2008
- Responsible of O.U. of University of Siena, PRIN Project “**Thermal solar plants for textile and Dairy sectors**” MIUR., partners university of Roma, Firenze and Milano – 2005-2006

## **Research in Physical Chemistry, Environmental Physical Chemistry and Energy** **Author of 330 papers in International Journals (around 180 on Physical Chemistry Topics and around 150 on Energy topics)**

**Topics in Physical Chemistry since 1974 to 2020 (around 180 papers) published in Journal of the American Chemical Society, Journal of Physical Chemistry, Physical Chemistry and Chemical Physics, Journal of Chemical Physics, Journal of Biological Chemistry, Journal of Molecular Biology, Biochemistry, Proc. of the Nat. Acad. of Sciences, Angewandte Chemie, J. of Inorganic Biochemistry**

1. Relaxation Mechanisms of Transition Metal Ions in solution studied by EPR and FT-NMR spectroscopies
2. Structural and dynamical studies on complexes of Transition Metal ions (Cu, Mn, Fe, V) with Aminoacids, Peptides and Proteins in liquid and solid phases
3. Multifrequency-EPR of Copper (II) complexes in liquid and solid phases

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4. Determination of Spin Hamiltonian Magnetic Parameters and Correlation Times by Computer simulation of EPR spectra at multifrequency and sensitivity analysis on Biomodel systems
5. Structure/activity relationships in copper complexes antitumoral drugs (Bleomycine, Thiosemicarbazones etc.)
6. Binary and ternary complexes of Copper with Phenanthroline and Cinnamic acids
7. Applications of Magnetic Resonance Spectroscopies to Pharmacology at molecular level
8. Computer design of a novel bio-mimetic molecular motor
9. Molecular structure of Cu(II) Complexes with Peptides in solution (and development of simulation programs for EPR spectra of Cu(II) containing Biomolecules in Rigid Limit and in Slow Motion regime)
10. Studies of EPR Spin Probing on Polymer-surfactant Systems and Site Direct Spin Labeling of Proteins
11. Spectroscopic Characterization of Versatile Peroxidases and Laccases Catalytic Mechanisms
12. Structure-activity relationships of oxidative enzymes for bio-transformations (and Enzymatic Bioremediation of Textile Dyes)
13. Catalytic mechanism and structural determinants of enzymatic properties of oxidases and peroxidases usable in biotechnological processes

**Topics in Energy field since 1998 to 2023 (around 150 papers) published on Applied Energy, Renewable and Sustainable Energy Reviews, Journal of Cleaner Production, Energy, Energy Policy, Energies, Ecological Indicators, Ecological Economics, Sustainability, Nature Energy**

14. Indicators for sustainable use of Natural and Energy Resources
15. Rebound Effect in Energy Efficiency and complexity
16. Thermodynamic analysis and LCA of transport systems
17. Energy sustainability indicators and LCA analysis in resources and energy fluxes
18. LCA of Novel photovoltaics (Organic Dyes, DSSC, Micromorf etc)
19. Environmental impact and LCA of Geothermal power plants
20. LCA and Environmental analysis of biodiesel production line from sunflower
21. Urban sustainability studied integrating LCA and urban metabolism
22. Complex networks and symmetry
23. Comparison of environmental performances of geothermal with other renewable energy systems
24. Environmental profile of Perovskite photovoltaics

### Books

**R. Basosi**, M. Cellura, S. Longo M.L. Parisi "Life Cycle Assessment of Energy Systems and Sustainable Energy Technologies: The Italian Experience" Springer Nature Switzerland AG pp 184 ISBN 978-3-39-93739, **2019**

G. L. GIANNUZZI, L. VALORI, **R. BASOSI** "Lo chiamavano il Paese del sole: il fotovoltaico italiano tra spontaneo insediamento e pianificazione", Aracne editrice S.r.l., stampato dalla "Ermes Servizi editoriali integrati srl", Aracne, (RM), ISBN:9788854867789 (1-179), **2013**

**R. BASOSI**, D. VERDESCA, "Il ruolo delle Regioni nella decarbonizzazione dell'economia", "Energia 2020: Energia e Ambiente dopo Kyoto", in Ed. Ambiente, Milano, pagg. 101-122 (ISBN: 88-89014-37-7), **2006**

D. VERDESCA, **R. BASOSI**, "Emission Trading e piano assegnazione quote", Il Sole24Ore, Pirola, Milano, 1-342, (ISBN: 88-324-5631-1), **2006**

**R. BASOSI**, D. VERDESCA, "Politiche energetiche per Enti Locali e Regioni: le nuove competenze tra legge di riforma (L. 239/2004), decentramento amministrativo, liberalizzazione del mercato e attuazione del Protocollo di Kyoto", Il Sole24Ore, Pirola, Milano, 1-468, (ISBN: 88-324-5138-7), **2005**

### Personal skills and competences

**Mother tongue Italian**

**Second Language English (lev. C2, proficient in understanding, speaking, reading and writing)**

**Teaching Activities from 1976 to 2019 RB has been lecturing Chimica Fisica I (Termodinamica), Chimica Fisica II (Meccanica Quantistica), Laboratorio di Chimica Fisica (Spettroscopia, Spettroscopia di Risonanza Magnetica, Spettroscopia Molecolare), Tecnologia ed Economia delle Fonti di Energia, Sustainable and Efficient Energy in Corsi di Laurea in**

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**Chimica, Corsi di laurea in Chimica e Tecnologia Farmaceutica, Laurea Magistrale in Chemistry (in English), Corso di Laurea in Ingegneria and in the PhD in Chemistry Program.**

### **Invited Lectures by Faculty Member at International Conferences or Institutions (not full)**

- *-University of Cairo (Egypt) Jul 7<sup>th</sup>, 2019*
- *-EXPO 2017 Future Energy, Astana, (Kazakistan) Jun 26<sup>th</sup> 2017*
- *-Science Park Trieste Feb 17<sup>th</sup>, 2017*
- *-Beni Mellal University (Morocco) Oct 1<sup>st</sup> 2016*
- *-University of Teheran Aug 30<sup>th</sup> 2016*
- *BIWAES Stockholm May 6<sup>th</sup> 2015*
- *Jagellonian University Krakow FEB 16<sup>th</sup> 2015*
- *International EU SET Plan Conference Roma (Italy) Dec 2014*
- *University of Warsaw Oct 2014*
- *Bogazici University Istanbul April 1<sup>st</sup> 2014*
- *London School of Economics March 2014*
- *National Institute of Industrial Technology June 2012 (Mumbai) India*
- *Jagellonian University Krakow (Poland), October, 3-6, 2007*
- *MEC, XI International Utilities Forum, "Renew. sources" Venezia, (Italy) May 9, 2007*
- *National Conference on Energy Policy in Italy, Bologna (Italy) April 18-19, 2005*
- *Intern Cong "Contribution of Urban areas to Kyoto Protocol", Genova, (It), May, 31<sup>th</sup>, 2001*
- *University of Norwich (England), September, 11-14, 2000*
- *UNAM Cuernavaca (Univers. Nacional Autonoma de Mexico), Mexico, October, 1999*
- *II Conferenza Regionale sull'Energia, Firenze, (Italy), October, 1999*
- *V International Symposium (Corfu, Greece), April 1999*
- *La Habana University, (Cuba), September 1998*
- *Conferenza Nazionale sull'Energia ed Ambiente, Roma (Italy), November, 1998*
- *V Renewable Energy Congress, Firenze (Italy), September, 1998*
- *Intern Work on Energy recovering from Urban Waste (RSU), Firenze (Italy), December, 1996*
- *I Conferenza Regionale Toscana Energia, Firenze (Italy), June, 1996*
- *3rd Workshop on Appl of EPR in Biology and Medicine, Krakow (Poland), September, 1995*
- *12th Conference of ISMAR, Sydney (Australia) July, 1995*
- *Eur ESR Meet. on recent adv appl to bioorganic materials, Paris (France), September, 1994*
- *Intern.l Conference Chimica dei Sistemi e Processi Biologici, Roma (Italy), December, 1993*
- *Work. Magn Spectr. on Bioinorg Transition, Homburg/Saar (Germany), February, 1993*
- *2nd Intern Work on Appl of EPR in Biology and Medicine, Krakow (Poland), September, 1989*
- *International Spektropi Sempozy, Samsun (Turkey) September, 1989*
- *Internat Workshop on EMR of Disordered Systems, Sofia (Bulgaria) July, 1989*
- *Weizmann Inst. of Sciences, Rehovot (Israel) October, 1988*
- *Jagiellonian University, Kracow, (Poland), April, 29<sup>th</sup>, 1987*
- *Marquette University, Wisconsin (U.S.A.), November, 22<sup>nd</sup>, 1985*
- *National ESR Centre, Wisconsin (U.S.A.), September, 17<sup>th</sup>, 1984*
- *Cornell University, Ithaca (N.Y. – U.S.A.), August, 21<sup>st</sup>, 1984*
- *Yale University, New Haven (Conn.) U.S.A., July, 30<sup>th</sup>, 1984*
- *Jagiellonian University, Krakow (Poland), June, 25<sup>th</sup>, 1984*
- *Medical College of Wisconsin Milwaukee (U.S.A.), September, 9<sup>th</sup>, 1983*
- *University of Wisconsin Milwaukee (U.S.A.), October, 21<sup>st</sup>, 1982*
- *North Western University Evanston, Evanston (U.S.A.), December, 9<sup>th</sup>, 1982*
- *Emory University Atlanta (U.S.A.), August, 24<sup>th</sup>, 1981*