

## PERSONAL INFORMATIONS

## ALEXANDRA MARIA HILLEBRAND-VOICULESCU

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Curriculum Vitae

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Yahoo msg: a13hille@yahoo.co.uk

Genus: F | Date of birth: 20/02/1970 | Nationality: Romanian

# **PLACES OF WORK** & PROFESSIONAL EXPERTISE

2005 – present:

Biochemist, senior researcher

Emil Racoviță Institute of Speleology of the Romanian Academy, Bucharest

Study of underground ecosystems by biochemical and molecular biology methods

Techniques: biochemistry, molecular biology and microbiology

1997 – 2005:

Biochemist, researcher

Institute of Biochemistry of the Romanian Academy, Bucharest

Study of glycoproteins maturation

 Techniques: chromatography, SDS-PAGE, Western Blot, immunoprecipitation, nucleic acids electrophoresis, cloning, cell cultures, metabolic labelling etc.

2005 – present; 1998 –

Assistant – External collaborator (part-time)

2001;1994 – 1997:

Carol Davila University of Medicine and Pharmacy, Bucharest

Seminars and laboratory

1995 - 1996:

Sales agent/consultant

Biorom S.A., Bucharest

 Selling of reagents and equipment for hospitals' biochemical laboratories and adviser in clinical biochemistry issues

1992:

Biology teacher

Normal school no.32, Bucharest

# **EDUCATION AND STUDIES**

1998 – 2004:

PhD in Biological Sciences

Institute of Biochemistry, Romanian Academy

 PhD thesis: Components Of The Complex Of Molecular Chaperones Involved In Glycoproteins' Maturation

1994 - 1995

Master in Molecular Biology (MSc)

Dpt. Biochemistry, Faculty of Biology, University of Bucharest

MSc thesis: Immunomodulatory Properties Of A Bacterial Extract – The Cantastim

1989 – 1994:

Bachelor in Biological Sciences (BSc)

Dpt. Biochemistry, Faculty of Biology, University of Bucharest

■ BSc thesis: A Study of the Human Catalase. Influences Of Cu<sup>+2</sup> Ions On The Rat Catalase



# FELLOWSHIPS, TRAININGS, COURSES RELATED TO THE PROFESSION

2014: Inter-academical exchange

Prague, Czech Republic

Institute of Microbiology, Academy of Sciences of the Czech Republic

Microbiology: Mycology

2013: Inter-academical exchange

Cescke Budejovice, Czech Republic

Institute of Soil Biology, Academy of Sciences of the Czech Republic

Microbiology: Mycology

2012: International Course of Karstology and Hydrogeochemistry

Chongqing, China

International Research Centre on Karst (IRCK)

2011: Training

Warwick, United Kingdom

School of Life Sciences, Warwick University (Prof. Colin Murrell)

- Topic: microbiology study of knallgas bacteria and methanogens from microbial biofilms and sediments from Movile Cave (Romania)
- Techniques/methods: classic molecular techniques (DNA isolation/purification, cloning etc.), SIP (stable isotopes probing), DGGE, biochemical methods (electrophoresis, GC)

2010: The 2<sup>nd</sup> White Sea Molecular Zoology Summer School

Moscow, Russia

White Sea Biological Station of the Lomonosov State University

Techniques/methods: molecular techniques

2007: Training

Leipzig, Germany

Max-Planck Institute of Evolutionary de Anthropology, Dpt. Evolutionary Genetics, Molecular Ecology Group (Prof. Michael Hofreiter)

- Topic: mtDNA isolated from teeth and bones of the cave bear (*Ursus spaeleus*) and mammoth
- Techniques/methods: molecular techniques specific for ancient DNA

2005: Course of Biospeleology

Cărbunari, Romania

 organised by the Romanian Society of Speleology and Karstology together with the Emil RAcoviţă Institute of Speleology of the Romanian Academy

Course of Karstology

Cărbunari, Romania

 organised by the Romanian Society of Speleology and Karstology together with the Emil Racoviță Institute of Speleology of the Romanian Academy

2003: Training

Hamburg, Germany

Dpt. Microbiology, Hamburg University (Prof. Wolfgang Sand)



- Topic: microbiology
- Techniques/methods: classical and molecular techniques of microbiology

Chemical Probes in Biology

Spetses, Greece

FEBS advanced course

2001 – 2002: Marie – Curie fellowship (12 months)

Manchester, United Kingdom (Prof. Neil Bulleid) School of Biological Sciences, Manchester University

- Topic: glycoproteins maturation processes occurring in the ER (folding, glycosilation etc.).
- Techniques/methods: molecular biology (in vitro transcription/translation, cloning, protein expression, DNA isolation/purification etc.), cell cultures, methods typical to protein biochemistry (electrophoresis, Western Blotting, chromatography,

immunoprecipitation, in vivo labelling)

1999; 2000: Training

Dortmund, Germany

Max-Planck Institute (dr. Kirill Alexandrov)

- Topic: fluorescently labelled compounds preparation (see List of scientific papers)
- Techniques/methods: the IMPACT technique (<u>Intein Mediated Purification with an Affinity Chitin-binding Tag</u>)

1997 - 1998: DAAD fellowship (12 months)

Marburg, Germany

Institute of Physiological Chemistry

- Topic : proteins' glycosilation
- Techniques/methods: immunology (preparation and purification of polyclonal antibodies); biochemical methods typical to protein biochemistry study (SDS-PAGE, TLC, affinity chromatography);

1995: Glycoscience: Glycobiologie et Glycotechnologie

Iaşi, Romania

• summer school organised by the French Ministry for Education and Research, The French Ministry of Foreign Affairs, the Romanian Ministry of Education and the French Cultural Services of the French Embassy in Bucharest

# FELLOWSHIPS, TRAININGS, COURSES <u>NOT</u> RELATED TO THE MAIN PROFESSION

Oct. 2014 – present: MSc. student

*Psychological assessment and intervention in educational fields* – Master Faculty of Psychology and Educational Sciences, University of Bucharest

 Psychological assessment; Personal development; Positive psychology; Stress management

2010: Project Manager

SC Ira Test Consult srl, Bucharest



1996: Initiation in Internet

Bucharest, Romania

• course organised by the Centre for Advanced Studies of the Automatic Learning of the Romanian Academy

#### **COMPETENCES**

First language Romanian

Foreign languages	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Conversation	Discourse	
French	C2	C2	C2	C2	C2
English	C2	C2	C2	C2	C2
German	C1	B2	C1	C1	C1
Spanish	B2	B2	B1	A2	

**Communication skills** Good communication skills obtained through the sales agent/consultant expertise (1 year)

and teaching (normal school no. 32, Bucharest; Univ. of Medicine and Pharmacy C.Davila,

**Bucharest**)

**Organisational/Managing** Good managing skills.

skills Presently: member of the Managing Committee of the COST Action Origins TD1308:

Origins and Evolution of Life on Earth and in the Universe.

Head of the Romanian team in one international scientific project;

Project director of five national scientific projects.

As secretary of the Romanian Society of Biochemistry and Molecular Biology (2003 -

2004) I organised international courses and conferences.

Organisation of kids camps, the SCUBA\_Speleo Adventure (since 2010)

**Teaching skills** Very good teaching skills

20 years as part-time assistant at the University of Medicine and Pharmacy C. Davila,

**Bucharest** 

1 year school biology teacher

**Skills obtained at the working** Techniques of biochemistry, molecular biology, microbiology

place

**IT skills** Good mastering of the Microsoft Office™

Other skills

2015: Alpine caving technique

Romanian Federation of Speleology

2008: First Aid

Red Cross, Bucharest, Romania

Intro Cave Diver (IANTD, cert# 109690)

2006: Master Scuba Diver (NAUI, Pic.nr. 18052)



2001: Protection against radiations

Curriculum Vitae

Course organised by the Manchester University, Great Britain

**MISCELLANEOUS** 

**Publications** Annex 1: List of publication

Scientific meetings & conferences

More than 50 participations to national and international meetings and conferences

**Projects** Annex 2: List of grants and projects

Awards & Prizes 2016 NBCC Foundation GCDF Scholarship

Diploma Salonului de Carte Universitară (remarkable editorial publication of the year

2011)

L.Gaman, M.Gîlcă-Vasile, **A.M.Hillebrand**, E.Panait, B.Vîrgolici (2011) *Practical Guide of* 

Biochemistry, Coord. I.Stoian, Ed. Universitară "Carol Davila", Bucharest

Best poster award

Ceacăreanu A.; Hillebrand A.; Alexandrov K. (2000) Chemo-Enzymatic Synthesis Of The

Fluorescent Complex Rab7:GDP Dissociation Inhibitor

Poster presented to the 29<sup>th</sup> International Conference of Immunology

Membership to professional societies

Management committee of the COST TD1308: Origins and Evolution of Life on Earth and in

the Universe (ORIGINS)

2014 - 2018

Society of General Microbiology

2011 – present

Romanian Society of Biochemistry and Molecular Biology

1998 - present

Group of Underwater and Speleological Exploration (GESS)

1994 - present

Romanian Federation of Speleology (nr.1198)

1998 - present

Editorial committees Romanian Journal of Clinical and Experimental Dermatology (ROJCED)

ISSN 2392-7461 and ISSN-L 2392-7461

2014 - present

**Positions** Secretary

Romanian Society of Biochemistry and Molecular Biology

2003 - 2004

Head of the Protected Areas Department

Group of Underwater and Speleological Exploration

2013 – present



# Other Authorised person

CUI: 25363150

Resolutions no. 5024/27.03.2009 and no. 62176/15.06.2010

Registration no. F40/1624/2009

- Main activities:
  - Research Development in Other Natural Sciences and Engineering (CAEN: 7219)
- Secondary activities:
- Support services for education (summer schools; laboratory activities) (CAEN: 8560);
  - Other sport activities (cod CAEN: 9319);
  - Written and spoken (interpreter) translation (cod CAEN: 7430)

# ENVIRONMENT PROTECTION AND CONSERVATION

### **Positions**

2005 – 2010 Custodian of natural protected areas

Obanul Mare și Peștera Movile (code 2.371; cave code 5210/15; class A)

Limanu Cave (code 2.358; cave code 5210/1; class B)

2010 - 2015 Custodian of Natura 2000 sites

ROSCI0114 Hergheliei Swamp – Obanul Mare and Movile Cave

ROSCI 0191 Limanu Cave

#### **Documents**

2006: Management Plan for Obanul Mare and Movile Cave

Regulation of Obanul Mare and Movile Cave

Accepted by the Monuments of Nature Comission of The Romanian Academy (CMN - AR

nr. 1696/11.08.2006)

Management Plan for Limanu Cave

Regulation of Limanu Cave

Accepted by the Monuments of Nature Comission of The Romanian Academy (CMN – AR

nr. 1696/11.08.2006)

Management Plan for Izverna Cave

Regulation of Izverna Cave

Accepted by the Monuments of Nature Comission of The Romanian Academy

# **Courses & Trainings**

2016, 2015, 2014, 2013: Experience exchange

Prague (2014 – 2016) and Cescke Budejovice (2013), Czech Republic

Caves closing systems; caves management;

2007: Managing NATURA 2000 sites

Constanța, Romania

TAIEX Environmental Workshop

2004: Role of environment NGOs in the implementation of Natura2000 network in Romania



Bucharest, Romania

 course organised by Romanian Federation of Speleology, the Romanian Ornithological Society and UNESCO Pro-Natura in collaboration with WWF-DCP and Natura2000 Romania

2003: Course for protected areas Custodians

Jupânești, Romania

 organised by Green Cross Romania in the frame of the LIFE2000Nat/RO/7187 REV project: Bats Protection and Conservation of their Underground Habitats in SW

**Carpathians** 

# **Environment projects**

2001 - 2004: Bats Protection and Conservation of their Underground Habitats in SW Carpathians

Project Life no. LIFE2000Nat/RO/7187 REV

- collaborator

2003: A Life Buoy for The Sea

Project no. RER/01/G33: BSERP/SGP/ ROM2

- collaborator

# **Communication/Awarness**

**2012:** Le Monde Souterrain Invisible De Dobrogea Du Sud – A.M. Hillebrand-Voiculescu

**Bucharest** (Romania)

Oral presentation in the frame of the International conference: *Dobrogea. Entre Terre Et Mer, L'Ampreinte du Temps Et Du L'Homme* (Dobrogea. Between Earth and Sea, Time and

Man Fingerprint)

**2008:** *Quo Vadis Mehedinți Plateau Geopark? -* <u>A. Hillebrand</u>, C. Lascu, V. Drăguşin, E. Isverceanu;

Sinaia (Romania)

Oral presentation in the frame of the interdisciplinary workshop: Vulnerability of Karstic

Patrimony Elements in Protected Areas

**2003 – present:** Documentaries

Member in GESS team

Awareness, ecological

education

**2010 – present:** Summer schools for kids aged 11 to 14

2002 – present: Seminaries & workshops for the students from the Faculty of Biology of the Ovidius

University, Constanţa

**ANNEXES** 

Annex 1: List of publications

Annex 3: List of grants and projects



## **Annex 1: PUBLICATIONS**

# PUBLICATION LIST\_Alexandra Hillebrand-Voiculescu

# Scientific papers (ISI)

- **1.** Novakova A, Hubka V, **Hillebrand-Voiculescu AM** (2016) *Cultivable microscopic fungi from an underground chemosynthesis-based ecosystem. A preliminary study, Folia Microbiologica* **submitted**
- 2. Chang D, Knapp M, Enk J, Lippold S, Kircher M, Lister A, MacPhee RDE, Widga C, Czechowski P, Sommer R, Hodges E, Stümpel N, Barnes I, Dalén L, Derevianko A, Germonpré M, Hillebrand-Voiculescu A, Constantin S, Kuznetsova T, Mol D, Rathgeber T, Rosendahl W, Tikhonov AN, Willerslev E, Hannon G, Lalueza-Fox C, Joger U, Poinar H, Hofreiter M, Shapiro B (2016) *The evolutionary and phylogeographic history of woolly mammoths: a comprehensive mitogenomic analysis, Scientific Reports* submitted
- **3.** Stephenson J, Kumaresan D, **Hillebrand-Voiculescu AM**, Murrell JC (2016) *Draft genome sequence of the methane oxidising bacterium "Candidatus Methylomonas sp. LWB" isolated from Movile Cave, Genome Announc. in press*
- **4.** Wischer D, Kumaresan D, Johnston A, El Khawand M, Stephenson J, **Hillebrand-Voiculescu A.M.**, Chen Y, Murrell J.C. (2015) *Bacterial metabolism of methylated amines and identification of novel methylotrophs in Movile Cave, The ISME J.*, 9(1): 195-206; doi:10.1038/ismej.2014.102
- 5. Draft genome sequences of facultative methylotrophs, Gemmobacter sp. strain LW1 and Mesorhizobium sp. strain 1M-11, isolated from Movile Cave, Romania Kumaresan D, Wischer D, Hillebrand-Voiculescu AM, Murrell JC (2015) Genome Announc. 3:e01266-15
- **6. Hillebrand-Voiculescu A.M.**, Iţcuş C, Ardelean I, Pascu DM, Perşoiu A, Rusu A, Brad T, Popa E, Onac BP, Purcarea C. (2014) *Searching for Cold-Adapted Microorganisms in the Underground Glacier of Scărișoara Ice Cave, România, Acta Carsologica*, 43(2-3): 319-329;
- 7. Schirmack J., Mangelsdorf K., Ganzert L., Sand W., Hillebrand-Voiculescu A., Wagner D. (2014) Methanobacterium movilense sp. nov., a Hydrogenotrophic, Secondary Alcohol Utilizing Methanogen from the Anoxic Sediment of the Subsurface Lake in Movile Cave, România, Int. J. Sys. Evol. Microbiol., 64(Pt 2): 522-527; doi:10.1099/ijs.0.057224-0
- 8. Lars Ganzert L., Schirmack J., Alawi M., Mangelsdorf K., Sand W., Hillebrand-Voiculescu A., Wagner D. (2014)

  Methanosarcina spelaei sp. nov., a methanogenic archaeon isolated from a floating biofilm of a subsurface

  sulphurous lake, Int. J. Sys. Evol. Microbiol., 64(Pt 10): 3478-3484; doi: 10.1099/ijs.0.064956-0
- 9. Flot JF, Bauermeister J., Brad T, Hillebrand-Voiculescu A., Sarbu SI, Dattagupta S. (2014) *Niphargus-Thiothrix associations may be widespread in sulfidic groundwaters: evidence from southeastern România, Molec. Ecol.*, 23(6): 1405-1417; doi: 10.1111/mec.12461;
- **10.** Kumaresan D., Wischer D., Stephenson J., **Hillebrand-Voiculescu A.**, Murrell J.C., 2013, *Microbiology of Movile Cave A Chemolithoautotrophic Ecosystem, Geomicrobiol. J.*, 31(3): 186 193, doi: 10.1080/01490451.2013.839764
- **11. Hillebrand-Voiculescu A.**, Rusu A., Iţcuş C., Perşoiu A., Brad T., Pascu M.D., Ardelean I., Onac B.P., Purcărea C., 2013, *Bacterial 16S-rRNA Gene Clone Library from Recent Ice Stalagmites of Scărișoara Cave, Rom. J. Biochem.*, 50(2): 109–118
- 12. Chen Y., Boden R., Hillebrand A., Baciu M., Kumaresan D., Moussard H., Murrell J.C., 2009, *Life Without Light:*Microbial Diversity and Evidence of Sulfur- and Ammonium-Based Chemolithotrophy in Movile Cave, ISME J, 3(9): 1093-104;
- **13.** Falniowski A., Szarowska M., Sirbu I., **Hillebrand A.**, Baciu M., 2008, *Heleobia Dobrogica (Grossu & Negrea, 1989)(Gastropoda: Rissooidea: Cochliopidae) and the Estimated Time of its Isolation in a Continental Analogue of Hydrothermal Vents, Molluscan Research, 28(3): 165–170;*
- **14.** Durek T., Alexandrov K., Goody R. S., **Hillebrand A.**, Heinemann I., Waldmann H., 2004, *Synthesis of Fluorescently Labeled Mono- and Diprenylated Rab7 GTPase*, *J. Am. Chem. Soc.*, 126(50): 16368-78;
- **15.** J. Ciopraga, **Hillebrand A.**, L. Matei, 2004, *Disulfide Bonds Formation And Role In Prokaryotic And Eukaryotic Cells, Rom. J. Biochem.*, 41(1): 65-79
- 16. Ciopraga J., Hillebrand A., 2003, Protein Disulfid Isomerase: A Multifunctional Folding Oxidoreductase, Rom. J.



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- **17. Hillebrand A. M**, Petrescu S. M, Bulleid N. J., 2002, *Folding Of Tyrosinase In An In Vitro Translation System, Eur. J. Biochem.* 269 (suppl. 1): 64 (PS3-037);
- **18** Ciopraga, J, **Hillebrand A**, Petrescu S., 2002, *Protein Disulfid Isomerase Activity In Melanoma Cells, Rom. J. Biochem.*, 39: 3-11
- 19. Hillebrand A. M., 2002, Folding Enzymes In Glycoproteins Maturation, Rom. J. Biochem., 39: 71-82
- **20.** Melcher R, **Hillebrand A**, Bahr U, Schroder B, Karas M, Hasilik A, 2000, *Glycosylation-Site-Selective Synthesis Of N-Acetyl-Lactosamine Repeats In Bis-Glycosylated Human Lysozyme*, *Biochem J.*, 348 (Pt 3): 507-515;
- 21 lakovenko A., Rostkova E., Merzlyak E., **Hillebrand A.M.**, Thomä N.H., Goody R.S., Alexandrov K., 2000, *Semi-Synthetic Rab Proteins As Tools For Studying Intermolecular Interactions, FEBS Lett.*, 468(2-3): 155-8;

### **BOOKS**

- Gaman Laura, Gîlcă-Vasile Marilena, **Hillebrand Alexandra Maria**, Vârgolici Bogdana, 2013, *Practical Guide of Biochemistry Second Revised Edition*, Coord. Dr. Stoian Irina, "Carol Davila" University Press, Bucharest-2013, ISBN: 978-973-708-714-0;
- Gîlcă Marilena, Gaman Laura, Panait Elena, Hillebrand Alexandra, Bogdana Vârgolici, 2011, Practical Guide of
- **2.** *Biochemistry*, Coord. Dr. Stoian Irina, Revised Edition, "Carol Davila" University Press, Bucharest-2011, ISBN: 978-973-708-638-9;
- 3. Gîlcă Marilena, Gaman Laura, Panait Elena, Hillebrand Alexandra, Vârgolici Bogdana, 2010, Coord. Stoian Irina, *Practical Guide of Biochemistry*, "Carol Davila" University Press, Bucharest-2010, ISBN: 978-973-708-434-7;

#### **BOOK CHAPTERS**

- 1. Kumaresan D, <u>Hillebrand-Voiculescu AM</u>, Wischer D, Stephenson J, Chen Y, Murrell JC, 2014, *The microbial world of Movile Cave* in *Life in Extreme Environments*, de Gruyter Publisher, Berlin *in press*
- **2. Hillebrand-Voiculescu Alexandra**, 2013, *L'Invisible Monde Souterrain de Dobrogea de Sud* în *Recherches Croisées en Dobrogea*, Coord. Jean-Paul Saint Martin, Ed. Amanda Edit, Bucharest, ISBN: 978-606-8567-14-3;
  - Hillebrand Alexandra, 2008, The Caves And Organisms' Adaptations To Their Environmental Conditions In
- **3.** Adaptation To Stress: Survival Condition And/Or Biodiversity Factor, 205-217, Ed. Romanian Academy, ISBN: 979-973-27-1540-0;



## **Annex 2: GRANTS AND PROJECTS**

#### I. SCIENTIFIC GRANTS AND PROJECTS

#### INTERNATIONAL GRANTS AND PROJECTS

- **CO-APPLICANT** (Head of the Romanian team) (1 grant)

2010 – 2013: Microbial Food Webs In Movile Cave (project no. NE/G017956/1)

Director of project: Prof. Colin Murrell, Warwick University, Great Britain

Financed by: Natural Environment Research Council (NERC)

COLLABORATOR (2 grants)

2016 – 2018: Cave ice microbiom: metabolic diversity and activity in response to climate dynamics and anthropogenic pollution (project ERANET-LAC, no.25/2016)
Director: Dr. Cristina Purcărea, Inst. of Biology, Bucharest, Romania
Financed by: ANCS-UEFISCDI

1995 – 1997: Signal Perception And Transduction In Plant - Fungus Interaction
Director: Dr. Ofelia Gozia, Inst. of Biochemistry, Bucharest, Romania
Financed by: European Community

## **NATIONAL GRANTS AND PROJECTS**

- **PROJECT DIRECTOR** (5 grants)

2007 – 2008: A Model Of Microbial Communities Living In The Biofilms At The Sulphurous Thermal Water - Air Interface In Mangalia Aquipher Structure And Activity Variation (Movile Cave) (project no. 235) Financed by: Romanian Academy

2003 – 2004: Determination of Protein-Disulfid Izomerases Oxidative States in the ER (project no. 79, 82) Financed by: Romanian Academy

2000: *ERp57 and other Protein Disulfid Isomerases Role in Tyrosinase Folding* (project no. 6136/B10) Financed by: Romanian Academy

1999 – 2000: *Study of Depigmentation Mechanisms in Movile Cave Organisms* (project no. 5204/B7; 6032/A7)

Financed by: Romanian Academy

1999: Study of ERp57 Involvement in Glycoprotein Folding Mechanism (project no. 34/414) Financed by: Romanian Academy

COLLABORATOR (8 grants)

2012 – 2015: Resilience of hydrothermal systems against natural and anthropogenic disturbances (project no. PN-II-PT-PCCA-2011-3.1-1619)

Director of project:Dr. Constantin Marin, *E.Racoviţă* Instit. Speleology, Bucharest, Ro Financed by: ANCS-UEFISCDI



- 2011 2015: Biodiversity and Chronological Distribution of Microorganisms in the Perennial Ice Deposits of Scărișoara Cave Glacier (Romania) (project no. PN-II-ID-PCE-2011-3-0742) Director of project:Dr. Cristina Purcărea, Instit. Biology, Bucharest, Romania Financed by: ANCS-UEFISCDI
- 2009 2013: Climate Archives In Karst An Integrated Approch To The Study And Modeling Of Abrupt Climate Oscillations (project no. PN-II-ID-PCCE-2008-1)

  Director of project: Dr. Silviu Constantin, E.Racoviţă Instit. Speleology, Bucharest, Romania Financed by: CNCSIS
- 2007 2008: *Study of Pollutants Transfer Mechanisms in Karst* (project no. 107)

  Director of project: Dr. Constantin Marin, *E.Racoviţă* Instit. Speleology, Bucharest, Romania Financed by: CNCSIS
- 2007 2008: Rapid Climate Oscillations In Karst Deposits From Romania As Revealed By Isotopic And Paleomagnetic Proxies (project no. CEEX 627/2005)

  Director of project: Dr. Silviu Constantin, E.Racoviţă Instit. Speleology, Bucharest, Romania Financed by: National Agency of Research and Technology
- 2001 2002: Role of Disulfide Isomerases in Glycoproteins Biosynthesis in Animal Cells (project no: 33508)

  Director of project: Dr. Jeana Ciopraga, Instit. Biochemistry, Bucharest, Romania

  Financed by: Romanian Ministry of Research and Technology
- 1996 1999: Studies on Plants' Molecular Defence Mechanisms Against Pathogenic Agents, To Elaborate
  New Strategies To Increase Their Resistance To Diseases, With A Direct Impact On The
  Environment's Protection (project no. 269)
  Director of project: Dr. Ofelia Gozia, Instit. Biochemistry, Bucharest, Romania
  Financed by: Romanian Ministry of Research and Technology
  - 1995: *Trophic Net of the Chemosynthesis- Based Ecosystem of Movile Cave* (project no. 3919)

    Director of project: Dr. Şerban Sârbu, Group for Underwater and Speleological Exploration

    Financed by: Romanian Academy

## II. ENVIRONMENTAL GRANTS AND PROJECTS

# - COLLABORATOR:

2001 – 2004: Bats Protection and Conservation of their Underground Habitats from Meridional Carpathians (LIFE2000Nat/RO/7187 REV)

Group for Underwater and Speleological Exploration

Financed by: European Community

2003: A Life Buoy for the Sea (RER/01/G33: BSERP/SGP/ ROM2)
Group for Underwater and Speleological Exploration
Financed by: European Community

1997: Sustainable Development of Mangalia Touristic Region Group for Underwater and Speleological Exploration Financed by: Soros Society