**Emil Racovita Institute of Speleology (ERIS)**

Alexandra M. Hillebrand-Voiculescu, Dr. - 44 years old; biochemist, senior scientist gr III, specialty: environmental biochemistry/microbiology

EXPERTISE: Molecular taxonomy; Biospeleology and the molecular adaptations of organisms to the underground (speleal) environment; Biodiversity and adaptability of caves microbiota (Movile Cave, Limanu Cave, Liliecilor Cave, all in Romania); Protein biochemistry (glycoprotein maturation processes occurring in the ER); Purification and handling of fossil (ancient) DNA isolated from bones/teeth of extinct species (e.g. mammoth, hyena, lions, cave bears); Enzymology; Speleology.

Publications: 9 ISI papers; 2 books chapters; co­author of 3 books; 140 citations, PI of 5 national grants; collaborator in 2 international and 8 national scientific grants and in 3 national environment projects;

RESEARCH INTEREST: karstic undergound terrestrial/aquatic ecosystems; caves&ice microbiology

STUDIES:

(1998 – 2004) PhD in Biological Sciences, Inst. Biochemistry, Romanian Academy; (1994 – 1995) MSc in Molecular Biology, Fac. Biochemistry; Univ. Bucharest, Romania; (1989 – 1994): BS in Biochemistry, Faculty of Biochemistry, Univ. Bucharest, Romania

FELLOWSHIPS AWARDED:

(2001­2002) Marie­Curie Fellowship, School of Biological Sciences Univ. Manchester, UK; (1997–1998) DAAD Fellowship, Inst. Physiological Chemistry, Marburg, Germany

PRESENT POSITION:

2005 – to date: Senior researcher grade III, E.Racoviţă Institute of Speleology, Bucharest, Romania;

2004 – to date: Head of the Science/Ecological Education/Environment Protection Department of the Group for Underwater and Speleological Exploration (GESS)

RESEARCH GRANTS (AS PI)

(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) (Romanian Academy); (2003 – 2004) Determination Of ER Protein Disulphide Isomerses’ Oxidation State (Romanian Academy); (2000) ERp57 and other protein disulphide isomerases role into tyrosinase folding (Romanian Academy)

PUBLICATIONS (selection)

(1) Hillebrand­Voiculescu A, Rusu A, Iţcuş C, Perşoiu A, Brad T, Pascu MD, Ardelean I, Onac BP, Purcărea C (2013) Bacterial 16S­rRNA Gene Clone Library from Recent Ice Stalagmites of Scărisoara Cave. Romanian Journal of Biochemistry 50(2): 109–118.

(2) Schirmack J, Mangelsdorf K, Ganzert L, Sand W, HillebrandVoiculescu A, Wagner D, (2013) Methanobacterium movilense sp. nov., a Hydrogenotrophic, Secondary Alcohol Utilizing Methanogen from the Anoxic Sediment of the Subsurface Lake in Movile Cave, Romania. Intl J Syst Evol Microbiol 64(Pt 2):522­7.

(3) Flot JF, Bauermeister J, Brad T, Hillebrand­Voiculescu A, Sarbu SI, Dattagupta S Niphargus­Thiothrix associations may be widespread in sulfidic groundwaters: evidence from southeastern Romania. Molecular Ecology 23:1405­17;

(4) Kumaresan D, Wischer D, Stephenson J, Hillebrand­Voiculescu A, Murrell JC Microbiology of Movile Cave – A chemolithoautotrophic ecosystem. Geomicrobiology Journal 31: 186­193.

(5) Chen Y, Boden R, Hillebrand A, Baciu M, Kumaresan D, Moussard H, Murrell JC (2009) Life Without Light: Microbial Diversity and Evidence of Sulfur­ and Ammonium­Based Chemolithotrophy in Movile Cave. The ISME Journal 3(9): 1093­104;

(6) 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