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Naowarat Cheeptham Editor

Cave Microbiomes: A Novel Resource for Drug Discovery



Editor Naowarat Cheeptham Thompson Rivers University Kamloops, BC, Canada

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In loving memory of Boontham Pongpleum and Diana Irene Dobson. For Sub and Ubon Cheeptham, and Gary G. Dobson. To Joe and Ryder Dobson, my rocks, with love.

-N.C.

For Airidas and Ieva.

-M.d.L.N.E.D.

About the Authors



Dr. Naowarat Cheeptham (ncheeptham@tru.ca) has been fascinated with the world of biology since she was out catching butterflies as a child with her father in her native country, Thailand. Her interest in microbiology developed while studying at Chiang Mai University (Thailand) and Hokkaido University (Japan). Since her doctoral work, Dr. Cheeptham has been interested in discovering new drugs that could be derived from rare microorganisms that thrive in extreme habitats such as caves. Currently, she is exploring the photochemotherapeutic potential of bioactive compounds produced by volcanic cave actinomycetes. Dr. Cheeptham's work was featured on Global TV and the Knowledge Network in Canada. Besides her research interests in cave microbiology, she is also drawn to pedagogical issues in microbiology education. In 2009, she was selected as one of the biology research residency scholars in the ASM/NSF Biology Research Residency Scholars Program and participated in an NSF-sponsored residency in Washington DC. She is an assistant professor at the Department of Biological Sciences, Thompson Rivers University, Kamloops, British Columbia, Canada.



Dr. Diana E. Northup (dnorthup@unm.edu) has been studying things that live in caves since 1984. She and her colleagues on the SLIME (Subsurface Life in Mineral Environments) Team are investigating how microbes help form the colorful ferromanganese deposits that coat the walls of Lechuguilla and Spider Cave in Carlsbad Caverns National Park; how these deposits compare to surface desert/rock varnish coatings; how microbes participate in the precipitation of calcium carbonate formations called pool fingers; and the microbial diversity located in the hydrogen sulfide cave, Cueva de las Sardinas in Tabasco, Mexico, using molecular, microbiological, and microscopy techniques. Dr. Northup has been honored by having her work featured on NOVA, the BBC, National Geographic, and the Discovery Channel. She is professor emerita in the University Libraries and a visiting associate professor of Biology at the University of New Mexico, USA.

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Dr. Maria de Lurdes N. Enes Dapkevicius (mariaenes@uac.pt) is an assistant professor of Microbiology at the University of The Azores. She obtained her PhD in Biotechnology, Food Technology and Nutrition in 2002 at Wageningen University (The Netherlands). Since 1987, she has been studying bacterial communities in Azorean environments. Traditional foods and the microorganisms they harbor was her first research interest. In 2004, she started carrying out research on the bacterial biofilms that are a main feature on the walls of Azorean lava tubes. Microbiological and molecular biological studies on cave-wall bacteria and their potential biotechnological uses are, presently, her main research area.

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