

ACADEMIC PROFILE

- 2016 Ph.D. Marine Science, Goa University, India
2006 M. Sc. Microbiology, Bharathiar University, India
2004 B. Sc. Microbiology, Goa University, India

PROFESSIONAL EXPERIENCE

- 2019 Scientist D, ESSO-National Centre for Polar & Ocean Research (formerly NCAOR), Goa
2015 Scientist C, ESSO-National Centre for Antarctic & Ocean Research, Goa, India
2011 Scientist B, ESSO-National Centre for Antarctic & Ocean Research, Goa, India
2008 Research Scientist B, ESSO-National Centre for Antarctic & Ocean Research, Goa, India
2006 Project Assistant III, National Institute of Oceanography, Goa, India

GRANTS, AWARDS & HONORS

- 2021 **Humboldt Research Fellowship** by the Alexander von Humboldt Foundation, Germany
2020 **SERB-Women Excellence award** by the Science and Engineering Research Board, India
2019 **Young Researcher award** by the Ministry of Earth Science, India
2017 **Associate of the Indian Academy of Sciences**
2016 **Early Career Researcher support by PAGES** (Past Global Changes) Office, Switzerland
2014 **Certificate of Merit for outstanding contribution in Polar Sciences** by Ministry of Earth Sciences, India
2011 **SCAR fellowship** by the Scientific Committee on Antarctic Research

PEER-REVIEWED PUBLICATIONS

- 2020 Samui G, **Antony R**, Thamban M. Fate of dissolved organic carbon and nutrients in Antarctic surface environments during summer. *Journal of Geophysical Research-Biogeosciences*, 125, e2020JG005958.
2020 Sanyal A, **Antony R**, Ganeshan P, Thamban M. Metabolic activity and bioweathering properties of yeasts isolated from different supraglacial environments of Antarctica and Himalaya. *Antonie van Leeuwenhoek*, 113(12).
2018 **Antony R**, Willoughby AS, Grannas AM, Catanzano V, Sleighter RL, Thamban M, Hatcher PG. Photo-biochemical transformation of dissolved organic matter on the surface of the coastal East Antarctic ice sheet. *Biogeochemistry*, 141(2).
2018 Samui G, **Antony R**, Thamban M. Chemical characteristics of hydrologically distinct Cryoconite holes in coastal Antarctica. *Annals of Glaciology*, doi: 10.1017/aog.2018.30.
2018 Sanyal A, **Antony R**, Samui G, Thamban M. Microbial communities and their potential for degradation of dissolved organic carbon in cryoconite hole environments of Himalaya and Antarctica. *Microbiological Research*, 208.
2017 **Antony R**, Willoughby AS, Grannas AM, Catanzano V, Sleighter RL, Thamban M, Hatcher PG, Nair S. Molecular insights on dissolved organic matter transformation by supraglacial microbial communities. *Environmental Science and Technology*, 51.
2017 Samui G, **Antony R**, Mahalinganathan K, Thamban M. Spatial variability and possible sources of acetate and formate in the surface snow of East Antarctica. *Journal of Environmental Science*, 57.
2016 **Antony R**, Sanyal A, Kapse N, Dhakephalkar PK, Thamban M, Nair S. Microbial communities associated with Antarctic snow pack and their biogeochemical implications. *Microbiological Research*, 192.
2014 **Antony R**, Grannas AM, Willoughby AS, Sleighter RL, Thamban M, Hatcher PG. Origin and Sources of Dissolved Organic Matter in Snow on the East Antarctic Ice Sheet. *Environmental Science and Technology*, 48 (11).
2012 **Antony R**, Krishnan KP, Laluraj CM, Thamban M, Dhakephalkar PK, Engineer AS, Shivaji S. Diversity and physiology of culturable bacteria associated with a coastal Antarctic ice core. *Microbiological Research*, 167.
2011 **Antony R**, Mahalinganathan K, Thamban M, Nair S. Organic carbon in Antarctic snow: spatial trends & possible sources. *Environmental Science and Technology*, 45.
2011 **Antony R**, Mahalinganathan K, Krishnan KP, Thamban M. Microbial preference for different size classes of

- organic carbon: A study from Antarctic snow. *Environmental Monitoring and Assessment*, 184.
- 2010 **Antony R**, Thamban M, Krishnan KP, Mahalinganathan K. Is cloud seeding in coastal Antarctica linked to bromine and nitrate variability in snow? *Environmental Research Letters*, 5(1).
- 2010 **Antony R**, Sujith PP, Fernandes SO, Verma P, Khedekar VD, Loka Bharathi PA. Cobalt immobilization by manganese oxidizing bacteria from the Indian Ridge system. *Current Microbiology*, 62(3).
- 2009 **Antony R**, Krishnan KP, Thomas S, Abraham WP, Thamban M. Phenotypic and molecular identification of *Cellulosimicrobium cellulans* isolated from Antarctic snow. *Antonie van Leeuwenhoek*, 96(4).

SELECTED SCIENTIFIC PRESENTATIONS

- 2019 Sanyal A, **Antony R** & 4 others. Diversity and functional characteristics of microbes within cryoconite hole ecosystems of Antarctica and Himalaya. *National Conference on Polar Sciences*, Goa, India (**Best paper award**)
- 2018 Samui G, **Antony R**, Thamban M. Nutrient cycling in supraglacial ecosystems in Larsemann Hills, East Antarctica. *Polar 2018*, Davos, Switzerland (**Best poster award - Asia**)
- 2017 Sanyal A, **Antony R**, Samui G, Thamban M. Carbon cycling potentials of Antarctic cryoconite hole microbial communities. *XIIth Scar Biology Symposium*, Belgium
- 2017 Sanyal A, **Antony R**, Samui G, Thamban M, 'Insights into carbon cycling potentials of cryoconite hole microbial communities'. *National Conference on Polar Sciences*, India (**Best poster award**)
- 2017 Samui G, **Antony R**, Thamban M. Biogeochemical characteristics of hydrologically connected and isolated cryoconite holes in coastal Antarctica. *National Conference on Polar Sciences*, India (**Best poster award**)
- 2016 **Antony et al.** 'Role of microbial communities in dissolved organic matter cycling in Antarctic snow'. *International Partnership in Ice Core Sciences Open Science meeting*, Hobart, Australia.
- 2015 **Antony et al.** 'Molecular evidence for rapid and extensive microbial and photochemical processing of organic matter on the surface of the Antarctic ice sheet'. *International Symposium on Antarctic Earth Sciences*, Goa, India. (**Best poster award**)
- 2015 Grannas AM, Fede A, Boschi V, Catanzano V, **Antony R**, Willoughby A, Hatcher P. 'Natural organic matter in cryosphere-atmosphere interactions: Chemistry and Characterisation' *Atmospheric Chemistry Gordon Conference*, New Hampshire, USA
- 2014 **Antony R***. 'Biogeochemical processes on Antarctic snow packs'. *15th Meeting of the Asian Forum for Polar Sciences*, Kuala Lumpur, Malaysia
- 2012 Núñez KG, **Antony R**, Doyle S, Christner BC, Battista JR. 'Selective capture: A Technology for Retrieving Specific DNA Sequences', *19th Annual International Meeting on Microbial Genomics*, California, USA
- 2012 **Antony et al.** Microbial and long-range terrestrial contributions of organic matter to Antarctica, *AGU fall meet*, San Francisco, USA
- 2010 **Antony et al.** '*Cellulosimicrobium cellulans* isolated from Antarctic snow and its physiological adaptations to live in the extreme cold'. *13th International Symposium on Microbial Ecology*, Seattle, USA
- 2009 **Antony et al.** 'Methanesulfonate and biogenic bromide in Coastal Antarctic snow: Implication on cloud seeding'. National Conference on *Climatic Changes during the Quarternary*, Goa, India (**Best poster award**)

PRINCIPAL INVESTIGATOR/CO-PRINCIPAL INVESTIGATOR

- **PI of the Women in Excellence project** *Dynamics and fate of organic carbon exported from the surface of the Antarctic Ice Sheet* funded by the Science & Engineering Research Board, Govt. of India.
- **Co-PI of the Indo-Norwegian research project MADICE** funded by the Ministry of Earth Sciences, India and Research Council Norway.
- **Co-PI of the PACER-POP project** *Understanding the networking of active metabolic pathways in microbial communities in glacier ecosystems* funded by the Ministry of Earth Sciences, India.

Updated April 2021