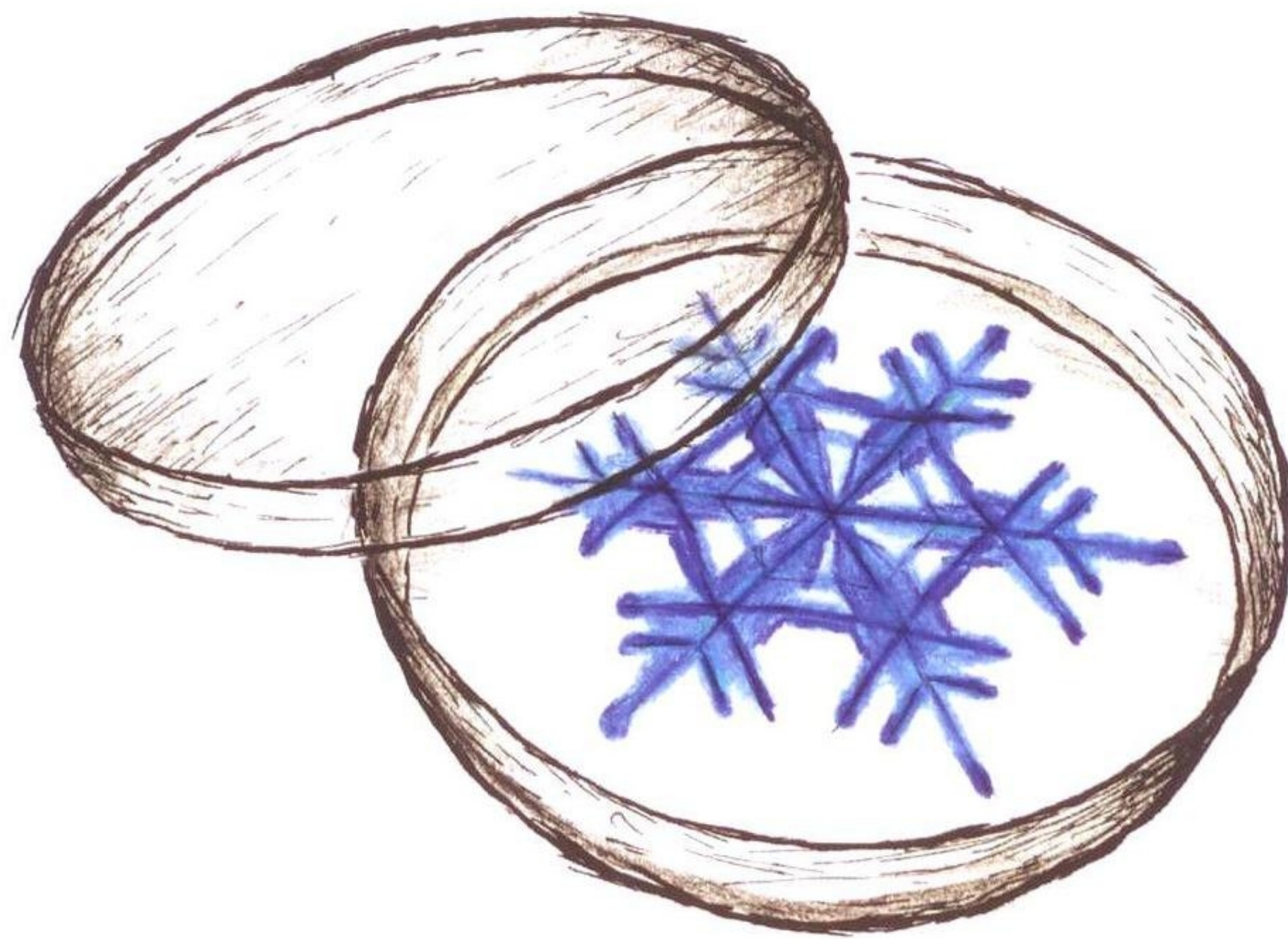


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Introduction of Polar and Alpine Microbial Collection (PAMC), a unique culture collection dedicated for polar microorganisms

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We introduce Polar and Alpine Microbial Collection (PAMC), the unique culture collection dedicated to maintenance and distribution of polar microorganisms. The collection comprises approximately 6,000 microorganisms isolated from various polar habitats such as soil, sea water, sediment, and lichen, etc. Among them, biodiversity information of 1,500 strains will be available and 500 strains were prepared for delivery currently. The number will be augmented increasingly. Approximately 1,300 strains out of 6,000 strains were identified by sequence similarity and phylogenetic analysis of 16S rRNA gene sequences. Identification results revealed that strains were included in 39 families and 91 genera. To meet the needs of users physiological characteristics such as growth temperature and extracellular enzyme or exopolysaccharide production were determined. The number of strains that could grow increased to 20°C and then decreased. The number of protease and lipase production strains consisted of 12% and 17%, of total strains screening test performed, respectively at 10°C while it was 40% and 43% at 20°C. Exopolysaccharide production strains consisted of 6% and 14% at 10°C and 20°C, respectively. Especially PAMC offers integrated searching for strains using various keywords such as taxonomy, geography, taxonomy, and physiological characteristics enabling researchers to apply them in various research areas. We expect that PAMC will play important roles as a repository of biodiversity and supplier of polar microorganisms.