सिक्किम विश्वविद्यालय
(स्थापित - २००७)

सूक्ष्मजीव कोष
Microbial Repository

सूक्ष्म जीव विज्ञान विभाग
जीवन विज्ञान **विद्यापीठ**
सिक्किम विश्वविद्यालय

Department of Microbiology
School of Life Sciences
Sikkim University

November 2020

About

The Department of Microbiology is one of the oldest departments of the University, which was established in October 2008. The Department offers a post graduate and PhD programme in Microbiology, and also focuses on high-quality research in food microbiology, metagenomic, metataxonomic, bioinformatics, environmental microbiology and industrial microbiology. Department of Microbiology has several extra-mural research projects and publishes research papers in SCI journals with high impact factors with the *h*-index ranging from 12 to 39. The Department has a full-fledged state-of-the-art laboratory with highly sophisticated instruments such as DNA sequencer, RT-PCR, Bio-Log unit, Gas Chromatography, HP-TLC unit, Flame photometer, gradient PCR, nanodrop, viscometer, DGGE system, UV-Visible spectrophotometer, Ultra centrifuge, DNA hybridizer, Sonicator, Bio-Safety Cabinets, aerobic and anaerobic incubators etc with Bioinformatics centre.

Isolation, enrichment and proper identification using molecular tools of microorganisms from various bio-resources and environment are one of the main thrust areas of research in Department of Microbiology. Collection of identified microorganisms is a repository or deposit of microbial gene bank for future use by researchers and is also a treasure of the University. Hence, we initiated the Microbial Repository Bank in Department of Microbiology, Sikkim University. A total of 508 identified microbial cultures (418 bacteria and 90 yeasts/fungi) are deposited in Microbial Repository of the Department. A Committee was constituted to prepare a list of microorganisms for Microbial Repository with Dr. B.M. Tamang, Assistant Professor as Convener, and three senior PhD scholars of the Department: Mr. Sayak Das, Mr. Ranjan Kaushal Tirwa and Mr. H. Nakibapher Jones Shangpliang, as members.

प्रो. ज्योति प्रकाश तामांग
Professor Dr. Jyoti Prakash Tamang
ICIMOD Mountain Chair
विभागाध्यक्ष/**Head**
सूक्ष्म जीव विज्ञान विभाग/**Department of Microbiology**

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Summary of microbial cultures

Sl no	Contributor	Bacteria	Yeasts/ filamentous moulds
1	Dr Anu Anupma	-	44
2	Dr. Meera Ongmu Bhutia	60	-
3	Mr. Naki H. Jonesbapher Shangpliang	76	-
4	Dr. Pooja Pradhan	68	-
5	Dr. Ranjita Rai	68	-
6	Dr. Shankar Prasad Sha	-	46
7	Mr. Lalit Kumar Chaurasia	12	-
8	Mr. Ranjan Kaushal Tirwa	9	-
9	Dr. Kriti Ghatani	6	-
10	Dr. Ishfaq Nabi Najar	72	-
11	Dr. Mingma Thendu Sherpa	47	-
Total		**418**	**90**

Dr. Anu Anupma (under Professor Dr. Jyoti Prakash Tamang)

Media used for preservation of cultures: **MEA**

Sl. N.	Strain Code	Name of organisms	Source	Identification method (18S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
1.	SMM-1	*Aspergillus flavus*	*Marcha*	ITS gene sequence (ITS1 and ITS4)	MK396469	NA
2.	SMM-3	*Mucor circinelloides*		ITS gene sequence (ITS1 and ITS4)	MK396489	NA
3.	SMM-4	*Rhizopus microsporus*		ITS gene sequence (ITS1 and ITS4)	MK396495	NA
4.	SMM-10	*Bjerkandera adusta*		ITS gene sequence (ITS1 and ITS4)	MK778445	NA
5.	SMM-16	*Penicillium chrysogenum*		ITS gene sequence (ITS1 and ITS4)	MK396477	NA
6.	SMM-22	*Penicillium polonicum*		ITS gene sequence (ITS1 and ITS4)	MK778446	NA
7.	SMM-35	*Penicillium chrysogenum*		ITS gene sequence (ITS1 and ITS4)	MK778447	NA
8.	MTM-1	*Mucor circinelloides*	*Thiat*	ITS gene sequence (ITS1 and ITS4)	MK396487	NA
9.	MTM-4	*Rhizopus delemar*		ITS gene sequence (ITS1 and ITS4)	MK396496	NA
10.	MTM-6	*Penicillium chrysogenum*		ITS gene sequence (ITS1 and ITS4)	MK396478	NA
11.	MTM-12	*Trametes hirsuta*		ITS gene sequence (ITS1 and ITS4)	MK396492	NA

Sl. N.	Strain Code	Name of organisms	Source	Identification method (18S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
12.	MTM-16	*Bjerkandera adusta*		ITS gene sequence (ITS1 and ITS4)	MK396500	NA
13.	AEM-1	*Penicillium citrinum*	*Humao*	ITS gene sequence (ITS1 and ITS4)	MK396481	NA
14.	AEM-3	*Rhizopus oryzae*		ITS gene sequence (ITS1 and ITS4)	MK396483	NA
15.	AEM-4	*Mucor circinelloides*		ITS gene sequence (ITS1 and ITS4)	MK396484	NA
16.	AEM-8	*Aspergillus sydowii*		ITS gene sequence (ITS1 and ITS4)	MK396472	NA
17.	AXM-1	*Aspergillus sydowii*		ITS gene sequence (ITS1 and ITS4)	MK396475	NA
18.	AMM-3	*Mucor indicus*		ITS gene sequence (ITS1 and ITS4)	MK778442	NA
19.	MHM-1	*Mucor circinelloides*	*Hamei*	ITS gene sequence (ITS1 and ITS4)	MK796043	NA
20.	MHM-15	*Penicillium citrinum*		ITS gene sequence (ITS1 and ITS4)	MK796042	NA
21.	TCM-1	*Bjerkandera adusta*	*Chowan*	ITS gene sequence (ITS1 and ITS4)	MK396494	NA
22.	TCM-4	*Mucor circinelloides*		ITS gene sequence (ITS1 and ITS4)	MK778449	NA
23.	TCM-7	*Rhizopus oryzae*		ITS gene sequence (ITS1 and ITS4)	MK396491	NA
24.	TCM-9	*Aspergillus sydowii*		ITS gene sequence (ITS1 and ITS4)	MK796041	NA

Sl. N.	Strain Code	Name of organisms	Source	Identification method (18S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
25.	TCM-12	*Penicillium chrysogenum*		ITS gene sequence (ITS1 and ITS4)	MK778448	NA
26.	APM-1	*Aspergillus sydowii*	*Phut*	ITS gene sequence (ITS1 and ITS4)	MK396473	NA
27.	APM-3	*Mucor circinelloides*		ITS gene sequence (ITS1 and ITS4)	MK396482	NA
28.	APM-6	*Aspergillus versicolor*		ITS gene sequence (ITS1 and ITS4)	MK396480	NA
29.	APM-7	*Mucor indicus*		ITS gene sequence (ITS1 and ITS4)	MK396498	NA
30.	APM-12	*Rhizopus oryzae*		ITS gene sequence (ITS1 and ITS4)	MK396490	NA
31.	APM-15	*Aspergillus sydowii*		ITS gene sequence (ITS1 and ITS4)	MK396474	NA
32.	MDM-1	*Mucor circinelloides*	*Dawdim*	ITS gene sequence (ITS1 and ITS4)	MK396497	NA
33.	MDM-10	*Bjerkandera adusta*		ITS gene sequence (ITS1 and ITS4)	MK396493	NA
34.	MDM-11	*Rhizopus microsporus*		ITS gene sequence (ITS1 and ITS4)	MK396488	NA
35.	MDM-14	*Mucor circinelloides*	*Dawdim*	ITS gene sequence (ITS1 and ITS4)	MK396486	NA
36.	MDM-16	*Bjerkandera adusta*		ITS gene sequence (ITS1 and ITS4)	MK396499	NA
37.	MDM-18	*Penicillium chrysogenum*		ITS gene sequence (ITS1 and ITS4)	MK778443	NA

Sl. N.	Strain Code	Name of organisms	Source	Identification method (18S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
38.	NKM-1	*Mucor circinelloides*	*Khekhrii*	ITS gene sequence (ITS1 and ITS4)	MK796045	NA
39.	NKM-6	*Penicillium citrinum*		ITS gene sequence (ITS1 and ITS4)	MK396479	NA
40.	NKM-7	*Aspergillus flavus*		ITS gene sequence (ITS1 and ITS4)	MK396470	NA
41.	NKM-8	*Aspergillus niger*		ITS gene sequence (ITS1 and ITS4)	MK396471	NA
42.	NKM-10	*Penicillium oxalicum*		ITS gene sequence (ITS1 and ITS4)	MK778444	NA
43.	NKM-13	*Aspergillus niger*		ITS gene sequence (ITS1 and ITS4)	MK396476	NA
44.	NKM-15	*Cladosporium parahalotoleranS*		ITS gene sequence (ITS1 and ITS4)	MK796044	NA

Dr. Meera Ongmu Bhutia (under Professor Dr. Jyoti Prakash Tamang)

Media used for preservation of cultures: **Nutrient Agar media**

Sl. N.	Strain Code	Name of organisms	Source	Identification method (18S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
1.	BSE32	*Shigella sonnei*	Beef *kargyong*	16S rRNA	MK791725	NA
2.	BSE27	*Klebsiella pneumonia*		16S rRNA	MK775240	NA
3.	BSE41	*Citrobacter freundii*		16S rRNA	MK775241	NA
4.	BSE17	*Citrobacter europaeus*		16S rRNA	MK774708	NA
5.	BSLST44	*Staphylococcus piscifermentans*		16S rRNA	MK788134	NA
6.	BULST54	*Staphylococcus piscifermentans*		16S rRNA	MK774756	NA

Sl. N.	Strain Code	Name of organisms	Source	Identification method (18S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
7.	BSMB16	*Bacillus cereus*		16S rRNA	MK780063	NA
8.	PSE31	*Pseudocitrobacter anthropi*	Pork *kargyong*	16S rRNA	MK775242	NA
9.	PSE39	*Citrobacter werkmanii*		16S rRNA	MK775243	NA
10.	PSKE30	*Burkholderia cepacia*		16S rRNA	MK775244	NA
11.	PSST49	*Staphylococcus saprophyticus*		16S rRNA	MK774760	NA
12.	PSST53	*Staphylococcus aureus*	*Satchu*	16S rRNA	MK775245	NA
13.	SME36	*Klebsiella grimontii*		16S rRNA	MK791682	NA
14.	SME26	*Klebsiella aerogenes*		16S rRNA	MK788132	NA
15.	SMX21	*Salmonella enterica*		16S rRNA	MK780051	NA

Sl. N.	Strain Code	Name of organisms	Source	Identification method (18S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
16.	SME33	*Citrobacter freundi*		16S rRNA	MK788133	NA
17.	KHE40	*Escherichia fergusonii*	*Khyopeh*	16S rRNA	MK774757	NA
18.	KHST43	*Macrococcus caseolyticus*		16S rRNA	MK774759	NA
19.	KHE57	*Enterococcus faecalis*		16S rRNA	MK774758	NA
20.	SIRX22	*Enterobacter cloacae*	*Sidra*	16S rRNA	MK774764	NA
21.	SISX4	*Enterobacter cloacae*		16S rRNA	MK789855	NA
22.	SISX20	*Klebsiella pneumoniae*		16S rRNA	MK780048	NA
23.	SILX19	*Klebsiella pneumoniae*		16S rRNA	MK789854	NA
24.	SIJX8	*Salmonella enterica*		16S rRNA	MK775248	NA
25.	SIRHE35	*Escherichia fergusonii*		16S rRNA	MK774763	NA

Sl. N.	Strain Code	Name of organisms	Source	Identification method (18S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
26.	SIRE29	*Escherichia fergusonii*		16S rRNA	MK774762	NA
27.	SIRHX24	*Escherichia coli*		16S rRNA	MK780042	NA
28.	SILT11	*Providencia stuartii*		16S rRNA	MK780040	NA
29.	SIRT12	*Providencia vermicola*		16S rRNA	MK780045	NA
30.	SIRT3	*Providencia rettgeri*		16S rRNA	MK780046	NA
31.	SIRHB9	*Bacillus cereus*		16S rRNA	MK780041	NA
32.	SIJB13	*Bacillus cereus*		16S rRNA	MK775246	NA
33.	SISB23	*Bacillus cereus*		16S rRNA	MK780047	NA
34.	SIJST46	*Staphylococcus edaphicus*		16S rRNA	MK775247	NA
35.	SIRST50	*Staphylococcus sciuri*		16S rRNA	MK780043	NA
36.	SIRST56	*Staphylococcus aureus*		16S rRNA	MK780044	NA
37.	SILST51	*Staphylococcus nepalensis*		16S rRNA	MK774761	NA
38.	SUE28	*Enterobacter hormaechei*		16S rRNA	MK774766	NA

Sl. N.	Strain Code	Name of organisms	Source	Identification method (18S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
39.	SUE25	*Enterobacter hormaechei*	*Sukuti*	16S rRNA	MK780052	NA
40.	SUE6	*Enterobacter hormaechei*		16S rRNA	MK774765	NA
41.	SUE37	*Enterobacter cancerogenus*		16S rRNA	MK780053	NA
42.	SURHE38	*Klebsiella pneumoniae*		16S rRNA	MK780058	NA
43.	SUJX18	*Salmonella enterica*		16S rRNA	MK774767	NA
44.	SUJX5	*Salmonella enterica*		16S rRNA	MK780054	NA
45.	SURX10	*Salmonella enterica*		16S rRNA	MK780060	NA
46.	SKRHX2	*Acinetobacter radioresistens*		16S rRNA	MK780049	NA
47.	SULT15	*Pseudomonas plecoglossicida*		16S rRNA	MK780056	NA
48.	SKRT1	*Providencia vermicola*		16S rRNA	MK780050	NA

Sl. N.	Strain Code	Name of organisms	Source	Identification method (18S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
49.	SULST47	*Staphylococcus aureus*	*Sukuti*	16S rRNA	MK780055	NA
50.	SUSST48	*Staphylococcus aureus*		16S rRNA	MK780062	NA
51.	SURST55	*Staphylococcus vitulinus*		16S rRNA	MK774768	NA
52.	SURST45	*Staphylococcus sciuri*		16S rRNA	MK780059	NA
53.	SURHB14	*Bacillus cereus*		16S rRNA	MK780057	NA
54.	SUSB7	*Bacillus cereus*		16S rRNA	MK780061	NA
55.	ASE34	*Enterobacter hormaechei*	*Asala*	16S rRNA	MK774706	NA
56.	ASE42	*Escherichia coli*		16S rRNA	MK775239	NA
57.	ASLST52	*Staphylococcus sciuri*		16S rRNA	MK774707	NA
58.	3223	*Salmonella enterica* ser. *typhimurium*	MTTC	16S rRNA		NA
59.	1272	*Bacillus cereus*		16S rRNA		NA
60.	740	*Staphylococcus aureus*		16S rRNA		NA

Mr. Naki H. Jonesbapher Shangpliang (under Professor Dr. Jyoti Prakash Tamang)

Media used for preservation of cultures: **MRS Agar/broth**

SL No.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
1	AcMr06	*Lactobacillus brevis*	*Mar* (cow)	16S rRNA	MK182839	NA
2	AcMr11	*Enterococcus durans*	*Mar* (cow)	16S rRNA	MT305922	NA
3	AcMr18	*Leuconostoc*	*Mar* (cow)	16S rRNA	MK182840	NA

SL No.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
		mesenteroides subsp. *mesenteroides*				
4	AcMr22	*Lactococcus lactis* subsp. *lactis*	*Mar* (cow)	16S rRNA	MT305923	NA
5	AcMr25	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Mar* (cow)	16S rRNA	MK203744	NA
6	AcMr27	*Lactococcus lactis* subsp. *lactis*	*Mar* (cow)	16S rRNA	MT305924	NA
7	AcMr34	*Enterococcus durans*	*Mar* (cow)	16S rRNA	MT305925	NA
8	AcMr42	*Enterococcus durans*	*Mar* (cow)	16S rRNA	MT305927	NA
9	AcMr53	*Enterococcus durans*	*Mar* (cow)	16S rRNA	MT305929	NA
10	AcMr58	*Enterococcus durans*	*Mar* (cow)	16S rRNA	MT305930	NA
11	AcMr60	*Enterococcus durans*	*Mar* (cow)	16S rRNA	MT305931	NA
12	AcMr75	*Lactococcus lactis* subsp. *lactis*	*Mar* (cow)	16S rRNA	MT305933	NA
13	AcMr82	*Lactococcus lactis* subsp. *lactis*	*Mar* (cow)	16S rRNA	MT305934	NA
14	AcMr91	*Enterococcus durans*	*Mar* (cow)	16S rRNA	MT305936	NA

SL No.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
15	AcMr94	*Enterococcus durans*	*Mar* (cow)	16S rRNA	MK203741	NA
16	AcMr98	*Enterococcus durans*	*Mar* (cow)	16S rRNA	MK203740	NA
17	AyMr01	*Enterococcus durans*	*Mar* (yak)	16S rRNA	MT305920	NA
18	AyMr03	*Enterococcus durans*	*Mar* (yak)	16S rRNA	MT305921	NA
19	AyMr31	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Mar* (yak)	16S rRNA	MK182841	NA
20	AyMr38	*Enterococcus durans*	*Mar* (yak)	16S rRNA	MT305926	NA
21	AyMr44	*Lactococcus lactis* subsp. *lactis*	*Mar* (yak)	16S rRNA	MT305928	NA
22	AyMr61	*Enterococcus durans*	*Mar* (yak)	16S rRNA	MT305932	NA
23	AyMr65	*Enterococcus durans*	*Mar* (yak)	16S rRNA	MK203743	NA
24	AyMr71	*Enterococcus durans*	*Mar* (yak)	16S rRNA	MK203742	NA
25	AyMr87	*Lactobacillus paracasei* subsp. *tolerans*	*Mar* (yak)	16S rRNA	MT305935	NA
26	AcCh04	*Lactobacillus paracasei* subsp.	*Chhurpi* (cow)	16S rRNA	MT305880	NA

SL No.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
		tolerans				
27	AcCh06	*Lactococcus lactis* subsp. *lactis*	*Chhurpi* (cow)	16S rRNA	MT305881	NA
28	AcCh11	*Lactobacillus paracasei* subsp. *tolerans*	*Chhurpi* (cow)	16S rRNA	MT305882	NA
29	AcCh14	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Chhurpi* (cow)	16S rRNA	MT305883	NA
30	AcCh17	*Lactobacillus paracasei* subsp. *tolerans*	*Chhurpi* (cow)	16S rRNA	MT305884	NA
31	AcCh21	*Lactococcus lactis* subsp. *lactis*	*Chhurpi* (cow)	16S rRNA	MT305885	NA
32	AcCh31	*Lactobacillus parabuchneri*	*Chhurpi* (cow)	16S rRNA	MT305887	NA
33	AcCh35	*Lactobacillus brevis*	*Chhurpi* (cow)	16S rRNA	MK182827	NA
34	AcCh41	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Chhurpi* (cow)	16S rRNA	MT305888	NA
35	AcCh63	*Lactobacillus coryniformis* subsp. *torquens*	*Chhurpi* (cow)	16S rRNA	MT305892	NA
36	AcCh67	*Lactococcus lactis* subsp. *cremoris*	*Chhurpi* (cow)	16S rRNA	MT305893	NA

SL No.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
37	AcCh71	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Chhurpi* (cow)	16S rRNA	MK182830	NA
38	AcCh74	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Chhurpi* (cow)	16S rRNA	MT305894	NA
39	AcCh78	*Lactobacillus paracasei* subsp. *tolerans*	*Chhurpi* (cow)	16S rRNA	MT305895	NA
40	AcCh81	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Chhurpi* (cow)	16S rRNA	MK182831	NA
41	AcCh91	*Lactobacillus brevis*	*Chhurpi* (cow)	16S rRNA	MK182832	NA
42	AyCh01	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Chhurpi* (yak)	16S rRNA	MT305879	NA
43	AyCh28	*Lactobacillus paracasei* subsp. *tolerans*	*Chhurpi* (yak)	16S rRNA	MT305886	NA
44	AyCh37	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Chhurpi* (yak)	16S rRNA	MK182828	NA
45	AyCh45	*Leuconostoc mesenteroides* subsp.	*Chhurpi* (yak)	16S rRNA	MK182829	NA

SL No.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
		mesenteroides				
46	AyCh51	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Chhurpi* (yak)	16S rRNA	MT305889	NA
47	AyCh55	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Chhurpi* (yak)	16S rRNA	MT305890	NA
48	AyCh58	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Chhurpi* (yak)	16S rRNA	MT305891	NA
49	AyCh85	*Lactococcus lactis* subsp. *lactis*	*Chhurpi* (yak)	16S rRNA	MT305896	NA
50	AyCh87	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Chhurpi* (yak)	16S rRNA	MT305897	NA
51	AyCh94	*Lactobacillus paracasei* subsp. *tolerans*	*Chhurpi* (yak)	16S rRNA	MT305898	NA
52	AcCk06	*Lactococcus lactis* subsp. *lactis*	*Churkam* (cow)	16S rRNA	MT305903	NA
53	AcCk11	*Lactococcus lactis* subsp. *lactis*	*Churkam* (cow)	16S rRNA	MT305904	NA
54	AcCk25	*Enterococcus durans*	*Churkam* (cow)	16S rRNA	MT305907	NA
55	AcCk35	*Leuconostoc*	*Churkam*	16S rRNA	MK182833	NA

SL No.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
		mesenteroides subsp. *mesenteroides*	(cow)			
56	AcCk41	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Churkam* (cow)	16S rRNA	MK182834	NA
57	AcCk46	*Lactococcus lactis* subsp. *hordniae*	*Churkam* (cow)	16S rRNA	MT305910	NA
58	AcCk51	*Enterococcus durans*	*Churkam* (cow)	16S rRNA	MT305911	NA
59	AcCk56	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Churkam* (cow)	16S rRNA	MK182835	NA
60	AcCk61	*Lactococcus lactis* subsp. *cremoris*	*Churkam* (cow)	16S rRNA	MT305912	NA
61	AcCk64	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Churkam* (cow)	16S rRNA	MK182836	NA
62	AcCk67	*Lactobacillus brevis*	*Churkam* (cow)	16S rRNA	MK182837	NA
63	AcCk74	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Churkam* (cow)	16S rRNA	MK182838	NA
64	AcCk75	*Lactococcus lactis* subsp. *lactis*	*Churkam* (cow)	16S rRNA	MT305914	NA

SL No.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
65	AcCk81	*Lactococcus lactis* subsp. *lactis*	*Churkam* (cow)	16S rRNA	MT305915	NA
66	AcCk83	*Enterococcus durans*	*Churkam* (cow)	16S rRNA	MT305916	NA
67	AcCk91	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Churkam* (cow)	16S rRNA	MT305918	NA
68	AyCk01	*Leuconostoc mesenteroides* subsp. *mesenteroides*	*Churkam* (yak)	16S rRNA	MT305901	NA
69	AyCk04	*Enterococcus durans*	*Churkam* (yak)	16S rRNA	MT305902	NA
70	AyCk15	*Enterococcus durans*	*Churkam* (yak)	16S rRNA	MT305905	NA
71	AyCk21	*Lactococcus lactis* subsp. *cremoris*	*Churkam* (yak)	16S rRNA	MT305906	NA
72	AyCk28	*Enterococcus durans*	*Churkam* (yak)	16S rRNA	MT305908	NA
73	AyCk33	*Enterococcus durans*	*Churkam* (yak)	16S rRNA	MT305909	NA
74	AyCk71	*Lactococcus lactis* subsp. *cremoris*	*Churkam* (yak)	16S rRNA	MT305913	NA
75	AyCk84	*Enterococcus durans*	*Churkam* (yak)	16S rRNA	MT305917	NA
76	AyCk93	*Leuconostoc mesenteroides*	*Churkam*	16S rRNA	MT305919	NA

SL No.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
		subsp. *mesenteroides*	(yak)			

Dr. Pooja Pradhan (under Professor Dr. Jyoti Prakash Tamang)

Media used for preservation of cultures: **MRS and Nutrient agar**

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/ Phenotypic)	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
1	AKB6	*Leuconostoc mesenteroides*	*Marcha* (Darjeeling)	16S rRNA	MK748250	No
2	BPB18	*Enterococcus durans*	*Marcha* (Bhutan)	16S rRNA	MK748251	No
3	DMB4	*Enterococcus durans*	*Marcha* (Darjeeling)	16S rRNA	MK748252	No
4	SMB13	*Leuconostoc mesenteroides*	*Marcha* (Sikkim)	16S rRNA	MK748253	No
5	AKB3	*Pediococcus acidilactici*	*Marcha* (Darjeeling)	16S rRNA	MK748254	No
6	AOB14	*Enterococcus durans*	*Pee* (Arunachal Pradesh)	16S rRNA	MK748255	No
7	AOB15	*Enterococcus faecium*	*Pee* (Arunachal Pradesh)	16S rRNA	MK748256	No
8	AOB25	*Enterococcus faecium*	*Phut* (Arunachal Pradesh)	16S rRNA	MK748258	No
9	AOB4	*Enterococcus faecium*	*Paa* (Arunachal Pradesh)	16S rRNA	MK748259	No
10	BPB11	*Enterococcus faecium*	*Marcha* (Bhutan)	16S rRNA	MK748260	No
11	BPB31	*Enterococcus faecium*	*Phab* (Bhutan)	16S rRNA	MK748264	No
12	BPB33	*Enterococcus faecium*	*Phab* (Bhutan)	16S rRNA	MK748265	No
13	DMB11	*Enterococcus durans*	*Marcha* (Darjeeling)	16S rRNA	MK748267	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/ Phenotypic)	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
14	DMB12	*Pediococcus acidilactici*	*Marcha* (Darjeeling)	16S rRNA	MK748268	No
15	DMB6	*Enterococcus durans*	*Marcha* (Darjeeling)	16S rRNA	MK748269	No
16	MBV14	*Enterococcus durans*	*Pee* (Arunachal Pradesh)	16S rRNA	MK748270	No
17	SMB15	*Enterococcus faecium*	*Marcha* (Sikkim)	16S rRNA	MK748274	No
18	SMB21	*Enterococcus faecium*	*Marcha* (Sikkim)	16S rRNA	MK748276	No
19	SMB5	*Enterococcus faecium*	*Marcha* (Sikkim)	16S rRNA	MK748277	No
20	SMB7	*Enterococcus durans*	*Marcha* (Sikkim)	16S rRNA	MK748278	No
21	AOB5	*Enterococcus faecalis*	*Paa* (Arunachal Pradesh)	16S rRNA	MK202997	No
22	BPB13	*Pediococcus pentosaceus*	*Marcha* (Bhutan)	16S rRNA	MK203008	No
23	BPB21	*Enterococcus durans*	*Phab* (Bhutan)	16S rRNA	MK203010	No
24	BPB4	*Enterococcus durans*	*Marcha* (Bhutan)	16S rRNA	MK203013	No
25	DMB3	*Enterococcus durans*	*Marcha* (Darjeeling)	16S rRNA	MK203015	No
26	AOB24	*Enterococcus hirae*	*Phut* (Arunachal Pradesh)	16S rRNA	MK202998	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/ Phenotypic)	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
27	DMB13	*Enterococcus durans*	*Marcha* (Darjeeling)	16S rRNA	MK203017	No
28	DMB14	*Pediococcus acidilactici*	*Marcha* (Darjeeling)	16S rRNA	MK203018	No
29	DMB11	*Pediococcus acidilactici*	*Marcha* (Darjeeling)	16S rRNA	MK203019	No
30	DMB15	*Enterococcus durans*	*Marcha* (Darjeeling)	16S rRNA	MK203020	No
31	NMB3	*Lactobacillus pentosus*	*Marcha* (Nepal)	16S rRNA	MK203022	No
32	NMB8	*Lactobacillus plantarum* subsp. *plantarum*	*Marcha* (Nepal)	16S rRNA	MK203024	No
33	AOB26	*Enterococcus lactis*	*Phut* (Arunachal Pradesh)	16S rRNA	MK202999	No
34	NMB7	*Lactobacillus plantarum* subsp. *plantarum*	*Marcha* (Nepal)	16S rRNA	MK203027	No
35	SMB9	*Weissella cibaria*	*Marcha* (Sikkim)	16S rRNA	MK203028	No
36	SMB13	*Pediococcus pentosaceus*	*Marcha* (Sikkim)	16S rRNA	MK203029	No
37	AOB2	*Enterococcus faecalis*	*Paa* (Arunachal Pradesh)	16S rRNA	MK203002	No
38	AOB11	*Enterococcus faecalis*	*Paa* (Arunachal Pradesh)	16S rRNA	MK203003	No
39	SMB11	*Enterococcus durans*	*Marcha* (Sikkim)	16S rRNA	MK752677	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/ Phenotypic)	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
40	SMB3	*Enterococcus faecalis*	*Marcha* (Sikkim)	16S rRNA	MK752675	No
41	AOB48	*Pseudomonas putida*	*Phut* (Arunachal Pradesh)	16S rRNA	MK203004	No
42	AOB18	*Klebsiella pneumoniae*	*Pee* (Arunachal Pradesh)	16S rRNA	MK748257	No
43	BPB23	*Enterobacter hormaechei* subsp. *xiangfangensis*	*Phab* (Bhutan)	16S rRNA	MK748261	No
44	BPB27	*Enterobacter hormaechei* subsp. *Xiangfangensis*	*Phab* (Bhutan)	16S rRNA	MK748263	No
45	BPB26	*Enterobacter hormaechei* subsp. *steigerwaltii*	*Phab* (Bhutan)	16S rRNA	MK203011	No
46	AOB9	*Stenotrophomonas maltophilia*	*Paa* (Arunachal Pradesh)	16S rRNA	MK203000	No
47	NMB10	*Bacillus zhangzhouensis*	*Marcha* (Nepal)	16S rRNA	MK203023	No
48	NMB23	*Staphylococcus xylosus*	*Marcha* (Nepal)	16S rRNA	MK203021	No
49	BPB24	*Bacillus albus*	*Phab* (Bhutan)	16S rRNA	MK748262	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/ Phenotypic)	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
50	BPB8	*Bacillus circulans*	*Marcha* (Bhutan)	16S rRNA	MK748266	No
51	NMB11	*Bacillus cereus*	*Marcha* (Nepal)	16S rRNA	MK748271	
52	NMB12	*Brevibacterium frigoritolerans*	*Marcha* (Nepal)	16S rRNA	MK748272	No
53	NMB13	*Brevibacterium frigoritolerans*	*Marcha* (Nepal)	16S rRNA	MK748273	No
54	SMB19	*Lysinibacillus boronitolerans*	*Marcha* (Sikkim)	16S rRNA	MK748275	No
55	BPB1	*Staphylococcus warneri*	*Marcha* (Bhutan)	16S rRNA	MK203006	No
56	BPB10	*Staphylococcus warneri*	*Marcha* (Bhutan)	16S rRNA	MK203007	No
57	BPB17	*Staphylococcus warneri*	*Marcha* (Bhutan)	16S rRNA	MK203009	No
58	BPB3	*Staphylococcus warneri*	*Marcha* (Bhutan)	16S rRNA	MK203012	No
59	BPB7	*Bacillus nitratireducens*	*Marcha* (Bhutan)	16S rRNA	MK203014	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/ Phenotypic)	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
60	DMB5	*Staphylococcus hominis* subsp. *hominis*	*Marcha* (Darjeeling)	16S rRNA	MK203016	No
61	NMB20	*Staphylococcus gallinarum*	*Marcha* (Nepal)	16S rRNA	MK203025	No
62	NMB22	*Staphylococcus sciuri*	*Marcha* (Nepal)	16S rRNA	MK203026	No
63	SMB22	*Micrococcus yunnanensis*	*Marcha* (Sikkim)	16S rRNA	MK203030	No
64	SMB1	*Bacillus subtilis* subsp. *inaquosorum*	*Marcha* (Sikkim)	16S rRNA	MK203031	No
65	SMB8	*Bacillus pseudomycoides*	*Marcha* (Sikkim)	16S rRNA	MK203032	No
66	AOB19	*Kocuria rosea*	*Pee* (Arunachal Pradesh)	16S rRNA	MK203001	No
67	AOB20	*Bacillus subtilis* subsp. *inaquosorum*	*Pee* (Arunachal Pradesh)	16S rRNA	MK203005	No
68	SMB14	*Bacillus nakamurai*	*Marcha* (Sikkim)	16S rRNA	MK752676	No

Dr. Ranjita Rai (under Professor Dr. Jyoti Prakash Tamang)

Media used for preservation of cultures: **MRS Agar**

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
1	DA4	*Lactococcus lactis*	*Dahi* (cow)	16S rRNA	MK290329	No
2	DA8	*Lactococcus lactis*	*Dahi* (cow)	16S rRNA	MK290330	No
3	DA41	*Lactococcus lactis*	*Dahi* (cow)	16S rRNA	MK290334	No
4	DA66	*Lactococcus lactis* subsp. *tructae*	*Dahi* (cow)	16S rRNA	MK290344	No
5	DA10	*Leuconostoc mesenteroides*	*Dahi* (cow)	16S rRNA	MK290345	No
6	DA35	*Enterococcus italicus*	*Dahi* (cow)	16S rRNA	MK290369	No
7	DA1	*Leuconostoc mesenteroides*	*Dahi* (cow)	16S rRNA	MK574836	No
8	DA14	*Lactococcus lactis*	*Dahi* (cow)	16S rRNA	MK574837	No
9	DA3	*Lactococcus lactis*	*Dahi* (cow)	16S rRNA	MK574857	No
10	DA11	*Leuconostoc mesenteroides*	*Dahi* (cow)	16S rRNA	MK583513	No
11	MH39	*Lactococcus lactis*	*Mohi* (cow)	16S rRNA	MK290331	No
12	MH3	*Lactococcus lactis*	*Mohi* (cow)	16S rRNA	MK290332	No
13	MH9	*Lactococcus lactis*	*Mohi* (cow)	16S rRNA	MK290333	No
14	MH15	*Leuconostoc*	*Mohi* (cow)	16S rRNA	MK290360	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
		mesenteroides				
15	MH18	*Leuconostoc mesenteroides*	*Mohi* (cow)	16S rRNA	MK290361	No
16	MH20	*Leuconostoc mesenteroides*	*Mohi* (cow)	16S rRNA	MK290362	No
17	MH4	*Lactococcus lactis*	*Mohi* (cow)	16S rRNA	MK574841	No
18	MH22	*Lactococcus lactis*	*Mohi* (cow)	16S rRNA	MK574842	No
19	MH40	*Lactococcus lactis*	*Mohi* (cow)	16S rRNA	MK574843	No
20	SC26	*Leuconostoc mesenteroides*	Soft *chhurpi* (cow)	16S rRNA	MK290354	No
21	SC30	*Leuconostoc mesenteroides*	Soft *chhurpi* (cow)	16S rRNA	MK290355	No
22	SC5	*Leuconostoc mesenteroides*	Soft *chhurpi* (cow)	16S rRNA	MK290356	No
23	SC4	*Leuconostoc mesenteroides*	Soft *chhurpi* (cow)	16S rRNA	MK290357	No
24	SC22	*Leuconostoc mesenteroides*	Soft *chhurpi* (cow)	16S rRNA	MK290358	No
25	SC7	*Leuconostoc mesenteroides*	Soft *chhurpi* (cow)	16S rRNA	MK290359	No
26	SC17	*Lactococcus lactis* subsp. *hordniae*	Soft *chhurpi* (cow)	16S rRNA	MK290343	No
27	SC19	*Lactococcus lactis* subsp. *cremoris*	Soft *chhurpi* (cow)	16S rRNA	MK290341	No
28	SC3	*Lactococcus lactis* subsp. *cremoris*	Soft *chhurpi* (cow)	16S rRNA	MK574844	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
29	SC11	*Leuconostoc mesenteroides*	Soft *chhurpi* (cow)	16S rRNA	MK574845	No
30	DY30	*Leuconostoc mesenteroides*	*Dahi* (yak)	16S rRNA	MK290346	No
31	DY14	*Leuconostoc mesenteroides*	*Dahi* (yak)	16S rRNA	MK290347	No
32	DY18	*Leuconostoc mesenteroides*	*Dahi* (yak)	16S rRNA	MK290348	No
33	DY29	*Leuconostoc mesenteroides*	*Dahi* (yak)	16S rRNA	MK290349	No
34	DY36	*Leuconostoc mesenteroides*	*Dahi* (yak)	16S rRNA	MK290350	No
35	DY42	*Leuconostoc mesenteroides*	*Dahi* (yak)	16S rRNA	MK290351	No
36	DY2	*Leuconostoc mesenteroides*	*Dahi* (yak)	16S rRNA	MK290352	No
37	DY3	*Leuconostoc mesenteroides*	*Dahi* (yak)	16S rRNA	MK574838	No
38	DY16	*Leuconostoc mesenteroides*	*Dahi* (yak)	16S rRNA	MK574839	No
39	DY19	*Leuconostoc mesenteroides*	*Dahi* (yak)	16S rRNA	MK574840	No
40	YS7-2	*Leuconostoc mesenteroides*	Hard *chhurpi* (yak)	16S rRNA	MK290363	No
41	YS7-3	*Leuconostoc mesenteroides*	Hard *chhurpi* (yak)	16S rRNA	MK290364	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
42	YS7-10	*Leuconostoc mesenteroides* subsp. *jonggajibkimchii*	Hard *chhurpi* (yak)	16S rRNA	MK290365	No
43	YS7-13	*Leuconostoc mesenteroides* subsp. *jonggajibkimchii*	Hard *chhurpi* (yak)	16S rRNA	MK290366	No
44	YS7-12	*Leuconostoc mesenteroides* subsp. *jonggajibkimchii*	Hard *chhurpi* (yak)	16S rRNA	MK290367	No
45	YS7-5	*Leuconostoc mesenteroides* subsp. *jonggajibkimchii*	Hard *chhurpi* (yak)	16S rRNA	MK290368	No
46	YS7-1	*Lactococcus lactis* subsp. *cremoris*	Hard *chhurpi* (yak)	16S rRNA	MK574852	No
47	YS7-4	*Leuconostoc mesenteroides*	Hard *chhurpi* (yak)	16S rRNA	MK574853	No
48	YS7-8	*Leuconostoc mesenteroides*	Hard *chhurpi* (yak)	16S rRNA	MK574854	No
49	YS4-1	*Leuconostoc mesenteroides*	Soft *chhurpi* (yak)	16S rRNA	MK290353	No
50	YS4-14	*Enterococcus faecalis*	Soft *chhurpi* (yak)	16S rRNA	MK290370	No
51	YS4-4	*Enterococcus faecalis*	Soft *chhurpi* (yak)	16S rRNA	MK290371	No
52	YS4-10	*Enterococcus*	Soft *chhurpi*	16S rRNA	MK290372	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
		pseudoavium	(yak)			
53	YS4-3	*Leuconostoc mesenteroides* subsp. *jonggajibkimchii*	Soft *chhurpi* (yak)	16S rRNA	MK574846	No
54	YS4-7	*Enterococcus faecalis*	Soft *chhurpi* (yak)	16S rRNA	MK574847	No
55	YS4-8	*Enterococcus faecalis*	Soft *chhurpi* (yak)	16S rRNA	MK574848	No
56	YS4-9	*Leuconostoc mesenteroides*	Soft *chhurpi* (yak)	16S rRNA	MK574849	No
57	YS4-11	*Enterococcus faecalis*	Soft *chhurpi* (yak)	16S rRNA	MK574850	No
58	YS4-15	*Lactococcus lactis* subsp. *cremoris*	Soft *chhurpi* (yak)	16S rRNA	MK574851	No
59	YS8-7	*Lactococcus lactis* subsp. *cremoris*	*Philu* (yak)	16S rRNA	MK290337	No
60	YS8-1	*Lactococcus lactis* subsp. *cremoris*	*Philu* (yak)	16S rRNA	MK290338	No
61	YS8-4	*Lactococcus lactis* subsp. *cremoris*	*Philu* (yak)	16S rRNA	MK290339	No
62	YS8-5	*Lactococcus lactis* subsp. *cremoris*	*Philu* (yak)	16S rRNA	MK290340	No
63	YS8-3	*Lactococcus lactis* subsp. *cremoris*	*Philu* (yak)	16S rRNA	MK290342	No
64	YS8-11	*Lactococcus lactis* subsp. *cremoris*	*Philu* (yak)	16S rRNA	MK574855	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
65	YS8-13	*Lactococcus lactis* subsp. *cremoris*	*Philu* (yak)	16S rRNA	MK574856	No
66	YS8-8	*Lactococcus lactis* subsp. *cremoris*	*Philu* (yak)	16S rRNA	MK290336	No
67	YS8-10	*Lactococcus lactis subsp. cremoris*	*Philu* (yak)	16S rRNA	MK290335	No
68	YS8-14	*Lactococcus lactis* subsp. *tructae*	*Philu* (yak)	16S rRNA	MK720122	No

Dr. Shankar Prasad Sha (under Professor Dr. Jyoti Prakash Tamang)

Media used for preservation of cultures: **Yeast Malt Agar/ Yeast Malt Broth**

SL No.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic)	Accession Number (NCBI)	If deposited in any Culture Collections Centers, Accession No and Name of Centre
1	GM29	*Wickerhamomyces anomalus*	*Marcha*	ITS-Sequencing	KY605141	NA
2	GMY1	*Wickerhamomyces anomalus*	*Marcha*	ITS-Sequencing	KY605153	NA

SL No.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic)	Accession Number (NCBI)	If deposited in any Culture Collections Centers, Accession No and Name of Centre
3	GMY5	*Wickerhamomyces anomalus*	*Marcha*	ITS-Sequencing	KY605154	NA
4	GMY12	*Pichia anomala*	*Marcha*	ITS-Sequencing	KY587129	NA
5	GMY29	*Wickerhamomycesanomalus*	*Marcha*	ITS-Sequencing	KY587130	NA
6	GMY46	*Wickerhamomyces anomalus*	*Marcha*	ITS-Sequencing	KY587131	NA
7	MY5	*Wickerhamomyces anomalus*	*Marcha*	ITS-Sequencing	KY605150	NA
8	STY21	*Saccharomycopsis fibuligera*	*Thiat*	ITS-Sequencing	KY605140	NA
9	STY6	*Wickerhamomyces anomalus*	*Thiat*	ITS-Sequencing	KY605145	NA
10	STY24	*Pichia terricola*	*Thiat*	ITS-Sequencing	KY605146	NA
11	STY15	*Saccharomycopsis fibuligera*	*Thiat*	ITS-Sequencing	KY605147	NA
12	STY12	*Wickerhamomyces anomalus*	*Thiat*	ITS-Sequencing	KY605148	NA
13	STY3	*Wickerhamomyces anomalus*	*Thiat*	ITS-Sequencing	KY605149	NA
14	STY49	*Wickerhamomyces anomalus*	*Thiat*	ITS-Sequencing	KY626330	NA
15	MY8	*Wickerhamomyces anomalus*	*Hamei*	ITS-Sequencing	KY587121	NA
16	HSY7	*Pichia kudriavzevii*	*Hamei*	ITS-Sequencing	KY626335	NA
17	AH45	*Candida glabrata*	*Hamei*	ITS-Sequencing	KY605155	NA

SL No.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic)	Accession Number (NCBI)	If deposited in any Culture Collections Centers, Accession No and Name of Centre
18	HY7	*Pichia kudriavzevii*	*Hamei*	ITS-Sequencing	KY605152	NA
19	ASY3	*Wickerhamomyces anomalus*	*Huamo*	ITS-Sequencing	KY587126	NA
20	ASY5	*Wickerhamomyces anomalus*	*Huamo*	ITS-Sequencing	KY587127	NA
21	ASY7	*Wickerhamomyces anomalus*	*Huamo*	ITS-Sequencing	KY587128	NA
22	ASY4	*Wickerhamomyces anomalus*	*Huamo*	ITS-Sequencing	KY605162	NA
23	CHY28	*Candida glabrata*	*Chowan*	ITS-Sequencing	KY605143	NA
24	CHY39	*Wickerhamomyces anomalus*	*Chowan*	ITS-Sequencing	KY605144	NA
25	CX44	*Wickerhamomyces anomalus*	*Chowan*	ITS-Sequencing	KY605159	NA
26	CHX26	*Wickerhamomyces anomalus*	*Chowan*	ITS-Sequencing	KY605160	NA
27	CHX39	*Wickerhamomyces anomalus*	*Chowan*	ITS-Sequencing	KY626331	NA
28	CHY22	*Wickerhamomyces anomalus*	*Chowan*	ITS-Sequencing	KY626334	NA
29	STY53	*Wickerhamomyces anomalus*	*Phut*	ITS-Sequencing	KY626332	NA
30	STY20	*Wickerhamomyces anomalus*	*Phut*	ITS-Sequencing	KY626333	NA
31	MY9	*Wickerhamomyces anomalus*	*Dawdim*	ITS-Sequencing	KY587136	NA
32	MY20	*Wickerhamomyces*	*Dawdim*	ITS-Sequencing	KY587137	NA

SL No.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic)	Accession Number (NCBI)	If deposited in any Culture Collections Centers, Accession No and Name of Centre
		anomalus				
33	MY30	*Candida glabrata*	*Dawdim*	ITS-Sequencing	KY587138	NA
34	MY47	*Wickerhamomyces anomalus*	*Dawdim*	ITS-Sequencing	KY587139	NA
35	MY57	*Wickerhamomyces anomalus*	*Dawdim*	ITS-Sequencing	KY587140	NA
36	MY3	*Wickerhamomyces anomalus*	*Dawdim*	ITS-Sequencing	KY587119	NA
37	MY6	*Pichia anomala*	*Dawdim*	ITS-Sequencing	KY587120	NA
38	STY15	*Saccharomycopsis fibuligera*	*Dawdim*	ITS-Sequencing	KY605157	NA
39	XTY20	*Pichia anomala*	*Dawdim*	ITS-Sequencing	KY605156	NA
40	XTY15	*Saccharomycopsis fibuligera*	*Dawdim*	ITS-Sequencing	KY605147	NA
41	KY8	*Wickerhamomyces anomalus*	*Khekhrii*	ITS-Sequencing	KY605151	NA
42	KY20	*Wickerhamomyces anomalus*	*Khekhrii*	ITS-Sequencing	KY605152	NA
43	KY18	*Wickerhamomyces anomalus*	*Khekhrii*	ITS-Sequencing	KY587132	NA
44	KY27	*Pichia anomala*	*Khekhrii*	ITS-Sequencing	KY587133	NA
45	KY38	*Wickerhamomyces anomalus*	*Khekhrii*	ITS-Sequencing	KY587134	NA
46	KY45	*Wickerhamomyces anomalus*	*Khekhrii*	ITS-Sequencing	KY587135	NA

Mr. Lalit Kumar Chaurasia (Under Dr. Buddhiman Tamang)

Media used for preservation of cultures: NA/MRS Broth/agar

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
1	LM1.6	*Enterococcus faecium*	Milk	16S rRNA	MH517442	NA
2	LM1.8	*Enterococcus faecium*	Milk	16S rRNA	MH733937	NA
3	LM5.2	*Enterococcus faecium*	Milk	16S rRNA	MH733938	NA
4	LM5.9	*Lactobacillus plantarum*	Milk	16S rRNA	MH544641	NA
5	LM5.10	*Enterococcus faecium*	Milk	16S rRNA	MH733939	NA
6	CLS6.1	*Enterococcus*	*Dahi*	16S rRNA	MH733940	NA

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
		faecium				
7	LK2.6	*Bacillus pumilus*	*Kinema*	16S rRNA	KY083696	NA
8	LK2.7	*Bacillus pumilus*	*Kinema*	16S rRNA	KY083697	NA
9	LK4.5	*Bacillus subtilis*	*Kinema*	16S rRNA	KY083698	NA
10	LK5.4	*Bacillus tequilensis*	*Kinema*	16S rRNA	KY083699	NA
11	LK5.3.1	*Bacillus subtilis*	*Kinema*	16S rRNA	KY083700	NA
12	LK5.3.2	*Bacillus tequilensis*	*Kinema*	16S rRNA	KY083701	NA

Mr. Ranjan Kaushal Tirwa (Under Dr. Buddhiman Tamang)

Media used for preservation of cultures: **MRS Agar/broth**

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
1	DMR08	*Lactobacillus plantarum*	*Home made dahi* (cow)	16S rRNA	MH588223.1	No
2	DMR09	*Lactobacillus plantarum*	*Home made*	16S rRNA	MH588224.1	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
			dahi (cow)			
3	DMR12	*Lactobacillus plantarum*	*Home made dahi* (cow)	16S rRNA	MH588225.1	No
4	DMR13	*Lactobacillus plantarum*	*Home made dahi* (cow)	16S rRNA	MH588226.1	No
5	DMR14	*Lactobacillus plantarum*	*Home made dahi* (cow)	16S rRNA	MT150943	No
6	DMR15	*Lactobacillus plantarum*	*Home made dahi* (cow)	16S rRNA	MH588227.1	No
7	DMR16	*Lactobacillus plantarum*	*Home made dahi* (cow)	16S rRNA	MT150944	No
8	DMR17	*Lactobacillus plantarum*	*Home made dahi* (cow)	16S rRNA	MT1509370	No
9	HS44	*Enterococcus faecalis*	*Home made dahi* (cow)	16S rRNA	MH588228	No

Dr. Kriti Ghatani (Under Dr. Buddhiman Tamang)

Media used for preservation of cultures: **MRS Agar/broth**

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
1	*YD8S*	*Lactobacillus pentosus*	*Yak shyow*	16S rRNA	KU601439	No
2	*YD9S*	*Lactobacillus plantarum*	*Yak shyow*	16S rRNA	KU601442	No
3	*YD11S*	*Lactobacillus paraplantarum*	*Yak shyow*	16S rRNA	KU601441	No
4	*YD5S*	*Lactobacillus plantarum*	*Yak shyow*	16S rRNA	KU601440	No
5	*YHC20*	*Enterococcus lactis*	Yak hard *chhurpi*	16S rRNA	KU601444	No
6	*YY1*	*Enterococcus faecium*	*khachu*	16S rRNA	KU601443	No

Dr. Ishfaq Nabi Najar (Under Dr. Nagendra Thakur)

Media used for preservation of cultures: **Thermus Agar; Nutrient Agar; Luria-Bertani Agar; Modified Luria-Bertani, YTP-2 medium, TR medium, R2A, BP medium, GYT**

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
1	TP3	*Geobacillus toebii*	Polok hot spring	16S rRNA	MG603308	No
2	TP2	*Geobacillus* sp.	Polok hot spring	16S rRNA	MG603309	No
3	BPP2	*Geobacillus* sp.	Polok hot spring	16S rRNA	MG603313	No
4	TP5	*Geobacillus toebii*	Polok hot spring	16S rRNA	MH535464	No
5	TP1	*Geobacillus toebii*	Polok hot spring	16S rRNA	MH535463	No
6	TB5	*Geobacillus* sp.	Borong hot spring	16S rRNA	MH535462	No
7	10PHB2	*Geobacillus* sp.	Borong hot spring	16S rRNA	MH535460	No
8	10PHB3	*Geobacillus* sp.	Borong hot spring	16S rRNA	MH535461	No
9	10PHP1	*Geobacillus toebii*	Polok hot spring	16S rRNA	MG603315	No
10	10PHP2	*Parageobacillus toebii*	Polok hot spring	16S rRNA	MG731573	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
11	TP9	*Anoxybacillus gonensis*	Polok hot spring	16S rRNA	KX894322	No
12	TP11	*Geobacillus lituanicus*	Polok hot spring	16S rRNA	MG603317	No
13	BPP1	*Geobacillus toebii*	Borong hot spring	16S rRNA	MG731574	No
14	TB10	*Geobacillus* sp.	Borong hot spring	16S rRNA	MG603310	No
15	TB7	*Geobacillus* sp.	Borong hot spring	16S rRNA	MG603311	No
16	TB3	*Geobacillus toebii*	Borong hot spring	16S rRNA	MG603312	No
17	BPB1	*Geobacillus* sp.	Borong hot spring	16S rRNA	MG603314	No
18	TRB1	*Geobacillus toebii*	Borong hot spring	16S rRNA	MG603316	No
19	YTPB1	*Geobacillus kaustophillus*	Borong hot spring	16S rRNA	MG603318	No
20	TRB1	*Anoxybacillus caldiproteolyticus*	Borong hot spring	16S rRNA	MG603319	No
21	TB9	*Geobacillus* sp.	Borong hot spring	16S rRNA	MG731576	No
22	TB1	*Geobacillus* sp.	Borong hot spring	16S rRNA	MG731575	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
23	SY1	*Geobacillus toebii*	Yumthang hot spring	16S rRNA	MF360785	No
24	SY3	*Geobacillus toebii*	Yumthang hot spring	16S rRNA	MF278569	No
25	SY4	*Geobacillus toebii*	Yumthang hot spring	16S rRNA	MF278570	No
26	SY5	*Geobacillus toebii*	Yumthang hot spring	16S rRNA	MF278564	No
27	SY6	*Geobacillus toebii*	Yumthang hot spring	16S rRNA	MF278563	No
28	SY8	*Geobacillus toebii*	Yumthang hot spring	16S rRNA	MF278571	No
29	SY12	*Geobacillus toebii*	Yumthang hot spring	16S rRNA	MF278565	No
30	SY14	*Geobacillus toebii*	Yumthang hot spring	16S rRNA	MF278566	No
31	SY15	*Geobacillus toebii*	Yumthang hot spring	16S rRNA	MF278572	No
32	SY17	*Geobacillus toebii*	Yumthang hot spring	16S rRNA	MF278573	No
33	17R4	*Geobacillus subterraneus*	Reshi hot spring	16S rRNA	MG709465	No
34	17R5	*Bacillus* sp.	Reshi hot spring	16S rRNA	MG709466	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
35	17R6	*Bacillus simithi*	Reshi hot spring	16S rRNA	MG709467	No
36	XTR1	*Geobacillus* sp.	Reshi hot spring	16S rRNA	MG709469	No
37	XTR3	*Geobacillus* sp.	Reshi hot spring	16S rRNA	MG709470	No
38	XTR5	*Geobacillus* sp.	Reshi hot spring	16S rRNA	MG709471	No
39	XTR6	*Geobacillus toebii*	Reshi hot spring	16S rRNA	MG709472	No
40	XTR11	*Geobacillus* sp.	Reshi hot spring	16S rRNA	MG709473	No
41	XTR12	*Geobacillus* sp.	Reshi hot spring	16S rRNA	MG709474	No
42	XTR14	*Geobacillus* sp.	Reshi hot spring	16S rRNA	MG709475	No
43	XTR17	*Geobacillus* sp.	Reshi hot spring	16S rRNA	MG709476	No
44	XTR19	*Geobacillus* sp.	Reshi hot spring	16S rRNA	MG709477	No
45	XTR20	*Geobacillus toebii*	Reshi hot spring	16S rRNA	MG709478	No
46	XTR21	*Geobacillus* sp.	Reshi hot spring	16S rRNA	MG709479	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
47	XTR24	*Geobacillus* sp.	Reshi hot spring	16S rRNA	MG709480	No
48	XTR25	*Geobacillus stearothermophilus*	Reshi hot spring	16S rRNA	MG709481	No
49	XTR26	*Geobacillus* sp.	Reshi hot spring	16S rRNA	MG709482	No
50	XTR27	*Geobacillus* sp.	Reshi hot spring	16S rRNA	MG709483	No
51	XTR28	*Geobacillus* sp.	Reshi hot spring	16S rRNA	MG709484	No
52	XTR32	*Geobacillus toebii*	Reshi hot spring	16S rRNA	MG709485	No
53	XTR39	*Geobacillus* sp.	Reshi hot spring	16S rRNA	MG709486	No
54	XTR40	*Geobacillus* sp.	Reshi hot spring	16S rRNA	MG709487	No
55	XTR52	*Geobacillus* sp.	Reshi hot spring	16S rRNA	MG709488	No
56	XTR54	*Geobacillus* sp.	Reshi hot spring	16S rRNA	MG709489	No
57	YTPR1	*Geobacillus kaustophilus*	Reshi hot spring	16S rRNA	MG709490	No
58	XTR22	*Geobacillus toebii*	Reshi hot spring	16S rRNA	MG709491	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
59	TY1	*Geobacillus* sp.	Yumthang hot spring	16S rRNA	MG725734	No
60	TY2	*Parageobacillus toebii*	Yumthang hot spring	16S rRNA	MG725735	No
61	TY3	*Geobacillus toebii*	Yumthang hot spring	16S rRNA	MG725736	No
62	TY4	*Geobacillus* sp.	Yumthang hot spring	16S rRNA	MG725737	No
63	TY6	*Geobacillus* sp.	Yumthang hot spring	16S rRNA	MG725738	No
64	TY7	*Geobacillus* sp.	Yumthang hot spring	16S rRNA	MG725739	No
65	TY11	*Geobacillus* sp.	Yumthang hot spring	16S rRNA	MG725740	No
66	TYN6	*Geobacillus* sp.	Yumthang hot spring	16S rRNA	MG725741	No
67	TYN4	*Parageobacillus toebii*	Yumthang hot spring	16S rRNA	MG725742	No
68	TY8	*Parageobacillus toebii*	Yumthang hot spring	16S rRNA	MG725743	No
69	TY9	*Parageobacillus toebii*	Yumthang hot spring	16S rRNA	MG725744	No
70	LYN3	*Geobacillus toebii*	Yumthang hot spring	16S rRNA	MG725745	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
71	LYN5	*Geobacillus* sp.	Yumthang hot spring	16S rRNA	MG725746	No
72	LYN10	*Geobacillus toebii*	Yumthang hot spring	16S rRNA	MG725747	No

Dr. Mingma Thundu Sherpa (Under Dr. Nagendra Thakur)

Media used for preservation of cultures: **Luria Bertani Agar; Antarctic Bacterial Medium**

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
1	CK1	*Lysinibacillus mangiferahumi*	Changme Khangpu glacier	16S rRNA	MG163137	No
2	CK3	*Bacillus safensis*	Changme Khangpu glacier	16S rRNA	MF163138	No
3	CK5	*Bacillus nealsonii*	Changme Khangpu glacier	16S rRNA	MF163141	No
4	CK6	*Bacillus sp. 210-11*	Changme Khangpu glacier	16S rRNA	MF163139	No
5	CK9	*Bervibacillus brevis*	Changme Khangpu glacier	16S rRNA	MF191718	No
6	CK10	*Neomicrococcus lactis*	Changme Khangpu glacier	16S rRNA	MF163142	No
7	CK11	*Pseudoclavibacter terrae*	Changme Khangpu glacier	16S rRNA	MF163143	No
8	CK13	*Bervibacterium linens*	Changme Khangpu glacier	16S rRNA	MF163144	No
9	CK15	*Bacillus aryabhattai*	Changme Khangpu glacier	16S rRNA	MF163145	No
10	CK16	*Bacillus pumilus*	Changme Khangpu	16S rRNA	MF191719	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
			glacier			
11	CK17	*Paenibacillus populi*	Changme Khangpu glacier	16S rRNA	MF191720	No
12	CK19	*Lysinibacillus sphaericus*	Changme Khangpu glacier	16S rRNA	MF163146	No
13	CK20	*Bacillus sp. gx13*	Changme Khangpu glacier	16S rRNA	MF191721	No
14	CK21	*Sphingomonas sp. PDD-69b-4*	Changme Khangpu glacier	16S rRNA	MF163147	No
15	CK22	*Staphylococcus haemolyticus*	Changme Khangpu glacier	16S rRNA	MF163148	No
16	KGG2	*Stenotrophomonas hibiscicola*	Kanchengayao glacier	16S rRNA	KY129838	No
17	KGG6	*Pseudomonas azotoformans*	Kanchengayao glacier	16S rRNA	MH157226	No
18	KGG13	*Pseudomonas maltophilia*	Kanchengayao glacier	16S rRNA	KY129834	No
19	KGG14	*Pseudomonas synxantha*	Kanchengayao glacier	16S rRNA	MH079449	No
20	KGG15	*Pseudomonas azotoformans*	Kanchengayao glacier	16S rRNA	MH079450	No
21	KGG16	*Pseudomonas azotoformans*	Kanchengayao glacier	16S rRNA	MH157236	No
22	KGG17	*Pseudomonas*	Kanchengayao	16S rRNA	MH157237	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
		azotoformans	glacier			
23	KGG20	*Stenotrophomonas maltophilia*	Kanchengayao glacier	16S rRNA	MH157227	No
24	KGG22	*Pseudomonas azotoformans*	Kanchengayao glacier	16S rRNA	MH157238	No
25	KGG25	*Stenotrophomonas maltophilia*	Kanchengayao glacier	16S rRNA	MH157228	No
26	KGG28	*Pseudomonas azotoformans*	Kanchengayao glacier	16S rRNA	MH157229	No
27	KGG29	*Pseudomonas azotoformans*	Kanchengayao glacier	16S rRNA	MH157239	No
28	KGG35	*Pseudomonas fluorescens*	Kanchengayao glacier	16S rRNA	KY129832	No
29	KGG38	*Pseudomonas azotoformans*	Kanchengayao glacier	16S rRNA	MH157230	No
30	KGG44	*Pseudomonas azotoformans*	Kanchengayao glacier	16S rRNA	MH157231	No
31	KGG45	*Pseudomonas azotoformans*	Kanchengayao glacier	16S rRNA	MH157232	No
32	KGG50	*Pseudomonas azotoformans*	Kanchengayao glacier	16S rRNA	MH157234	No
33	KGG51	*Pseudomonas poae*	Kanchengayao glacier	16S rRNA	MH079451	No
34	KGG53	*Pseudomonas poae*	Kanchengayao	16S rRNA	MH157233	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
			glacier			
35	KGG59	*Pseudomonas reactants*	Kanchengayao glacier	16S rRNA	KY129833	No
36	KGG61	*Pseudomonas azotoformans*	Kanchengayao glacier	16S rRNA	MH157235	No
37	KGG62	*Pseudomonas azotoformans*	Kanchengayao glacier	16S rRNA	MH079452	No
38	CKG1	*Bacillus cereus*	Changme Khang glacier	16S rRNA	KY982961	No
39	CKG2	*Bacillus thuringinensis*	Changme Khang glacier	16S rRNA	KY982962	No
40	CKG4	*Bacillus safensis*	Changme Khang glacier	16S rRNA	MG736309	No
41	CKG5	*Enterobacter cloacae*	Changme Khang glacier	16S rRNA	KY982963	No
42	CKG6	*Bacillus oceanisediminis*	Changme Khang glacier	16S rRNA	MF163139	No
43	CKG8	*Paracoccus marcusii*	Changme Khang glacier	16S rRNA	MF163140	No
44	C1	*Bacillus wiedmannii*	Chumbu glacier	16S rRNA	MH157240	No
45	C2	*Bacillus velezensis*	Chumbu glacier	16S rRNA	MH157241	No
46	C3	*Bacillus odorifer*	Chumbu glacier	16S rRNA	MH157242	No

Sl. N.	Strain Code	Name of organisms	Source	Identification method (16S rRNA/ITS/Phenotypic	Accession Number (NCBI)	If deposited in any Culture Collections Centres, Accession No and Name of Centre
47	C4	*Bacillus fusiformis*	Chumbu glacier	16S rRNA	MH157243	No