

## **Comparison of the fecal microbiota in arctic migratory birds during breeding season.**

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The gut microbiota of birds are inherited and characterized among the species, but change flexibly with breeding status and feeding items. In this study, we questioned whether different bird species with similar feeding habitats share analogous gut microbiota during the breeding season. And non-breeding species have distinctive microbiota during moulting period. In the same habitat, we choose three migratory arctic bird species (snow bunting, sanderling and pink-footed goose) that are phylogenetically quite distant each other in different families, and share different feeding habitats. We collected faecal samples and characterized the prevalence of gut bacteria using Illumina Miseq platform to sequence bacterial 16S rRNA genes. Our results showed that three arctic birds were dominated by three bacterial phyla (Proteobacteria, Firmicutes and Bacteroidetes). However, snow buntings and sanderlings were dominated by Firmicutes and Bacteroidetes but proteobacteria was dominating in pink-footed geese. This suggests that feeding habitat and breeding status are possibly the strongest factor that affecting gut microbiota of arctic migratory birds during the breeding season.

# Timetable (provisional)

April 17 (Wed)					
Time	Halla	Samda	301	302	Lobby
11:00~					
12:00-14:00	[Charging Workshop] 대사네트워크 모델링과 시뮬레이션	Micropedia Workshop	[Workshop] ISO/TC276 Workshop	[Charging Workshop] R-Course (Basic)	
14:00-14:10	OPENING ADDRESS				Registration 10:30~
14:10-14:50	Opening Lecture - Prof. Jihyun F. KIM				
14:50-15:00	Break time				Exhibition 14:00~
15:00-17:00	S1 Korean Food and Human Microbiome	S2 Microbial Life on the Polar Regions	S3 Current Progress in Staphylococci	S4 IMAF Excellence in Research and Service	Poster Posting 1 14:00~
17:00-17:10	Break time				
17:10-17:55	PL1 - Prof. Michael WAGNER				
18:00-19:00	Welcome Reception with Poster Presentation 1				

# April 18 (Thu)

Time	Halla	Samda	301	302	303	Lobby
09:00-11:00	S5 Microbiome and Immune Modulation	S6 Microbial Resources for Industrial and Agricultural Applications	GS1 Graduate Students' Forum 1	YS Young Scientists' Forum	S7 Session for the Industrial Microbiologist	
11:00-11:10	Break time					
11:10-11:55	PL2 - Prof. Sang Yup LEE					
12:00-13:00	General Meeting of MSK	ChunLab Luncheon Symposium	LUNCH			Exhibition 09:00~
13:00-13:45	PL3 - Prof. Joseph HEITMAN					
13:45-14:00	Break time					Poster Posting 2 11:00~
14:00-16:00	S8 Microbial Ecology of Carbon and Nitrogen Cycling in Environmental Ecosystems	S9 Understanding of Microbial Pathogenesis	S10 Fungal Genetics and Biology	S11 Understanding Hepatitis Viral Infections	S12 야쿠르트세션	
16:00-16:15	Break time				의과학언론인 세미나	
16:15-17:00	PL4 - Prof. Thomas NYSTRÖM					
17:00-18:00	Poster Presentation 2					
18:00-20:00	Banquet					

# April 19 (Fri)

Time	Halla	Samda	301	302	Lobby	
09:00-11:00	S13 Anaerobe and Its Impact on the Human Intestinal Microbiome	S14 Environmental Dimension of Antibiotic Resistance	S15 Responses of Microorganisms to Various Stresses	S16 New Insights into the Human Microbiome and Probiotics		
11:00-11:10	Break time					
11:10-11:55	PL5 - Prof. Richard L. GOURSE					Exhibition 09:00~
12:00-13:00	LUNCH	illumina Luncheon Symposium	Cell Biotech Diamond Luncheon			
13:00-15:00	S17 Koheon Symposium on Biology of Actinomycetes	GS2 Graduate Students' Forum 2	8th HS High School Students' Presentation Session	[Charging Workshop] R-Course (Advanced)		
15:00-15:10	Award Presentation to High School Students					
15:00-15:10	Break time					
15:10-15:50	Special Lecture - Prof. V. Narry KIM					
16:00-16:30	CLOSING CEREMONY					