

**Supplementary Table 1. List of analyzed *E. coli* strains for the prototype core variome database.**

Strain	Origin	Syndrome	Pathotype
UTI89	Human	Cystitis	Extraintestinal
536		Pyelonephritis	(ExPEC)
CFT073		Pyelonephritis	
IAI39		Urinary tract infection	
UMN026		Urinary tract infection	
S88		Neonatal meningitis	
<i>S. boydii</i> (Sb227)		Diarrhea	<i>Shigella</i>
<i>S. sonnei</i> (Ss046)		Diarrhea	
<i>S. flexneri</i> (Sf_5a str. 8401)		Diarrhea	
<i>S. dysenteriae</i> (Sd197)		Diarrhea	
55989		Gastroenteritis	Enteropathogenic
042		Diarrhea	(EAEC)
EDL933		Diarrhea	Enterohemorrhagic (EHEC)
E2348/69		Diarrhea	
E24377A		Diarrhea	Enterotoxigenic (ETEC)
MG1655		Healthy	Non-clinical
IAI1		Healthy	
ATCC 8739		Healthy	
HS		Healthy	
SE11		Healthy	
Ed1a		Healthy	
SECEC SMS-3-5	Environment	-	

**Supplementary Table 2. List of analyzed *S. enterica* strains for the prototype core variome database.**

Strain	Origin	Serovar	Pathotype
LT2	Human	Typhimurium	Enteric
D23580	Human	Typhimurium	
14028S	Chicken	Typhimurium	
P125109	Human	Enteritidis	
SL476	Human	Heidelberg	
SL483	NA	Agona	
SL254	NA	Newport	
CVM19633	NA	Schwarzengrund	
SC-B67	Human	Choleraesuis	Systemic
CT_02021853	NA	Dublin	
SPB7	Human	Paratyphi B	
287/91	Chicken	Gallinarum	
CT18	Human	Typhi	
Ty2	Human	Typhi	
ATCC 9150	Human	Paratyphi A	
AKU_12601	Human	Paratyphi A	
RKS4594	Human	Paratyphi C	

NA: information not available