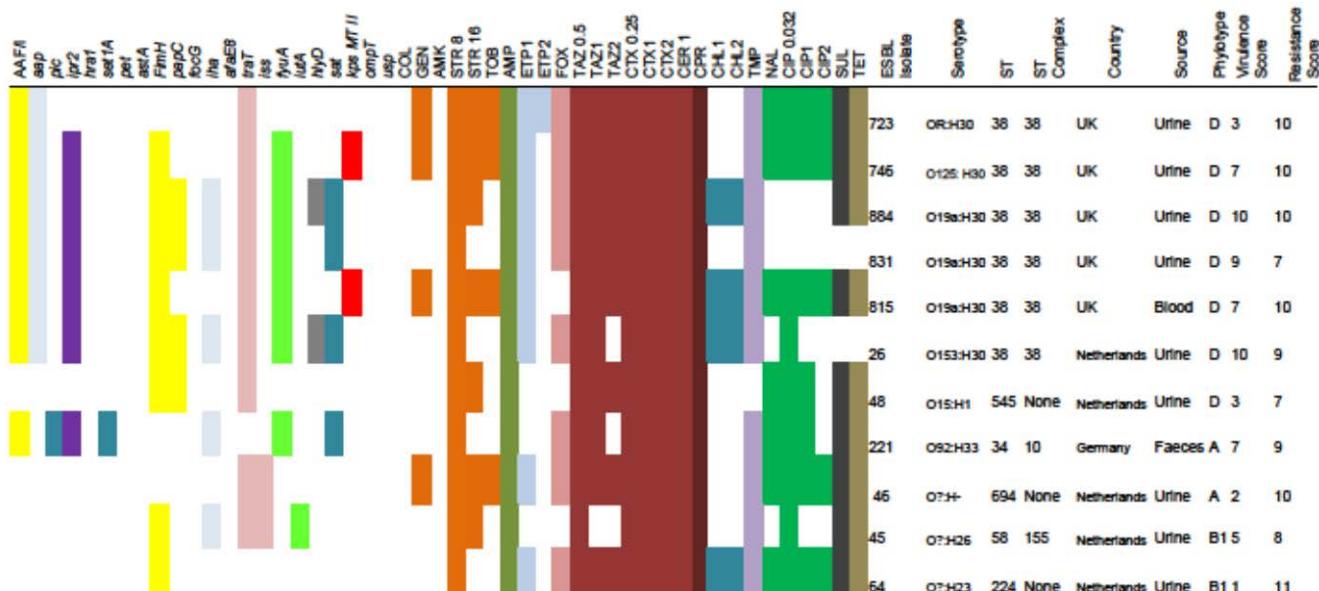


# Evidence of Evolving Extraintestinal Enteropathogenic *Escherichia coli* ST38 Clone

## Technical Appendix



**Key:** Virulence genes: AAF/I (EAEC type 1 fimbriae), aap (EAEC dispersin gene), pIC (serine protease autotransporter), ipr2 (yersiniabactin biosynthesis gene), hra1 (EAEC heat resistant agglutinin), setA (Shigella toxin), pet (EAEC plasmid encoded toxin) astA (EAEC heat stable toxin EAST-1), fimbH – (type 1 fimbriae, *E. coli*), papC (P fimbriae, ExPEC), iha (adhesin – siderophore, ExPEC), afaE8 (Dr Family adhesins, ExPEC), traT and iss (serum resistance associated, ExPEC), fuyA (yersiniabactin receptor, ExPEC), iutA (iron acquisition), hyd (haemolysin, ExPEC), sat (secreted autotransport toxin), kps MT (group 2 capsule, ExPEC), ompT (outer membrane protease T, ExPEC), usp (uropathogenic specific protein, ExPEC). Antibiotics: COL (colomycin, 2 mg/L), GEN (gentamicin, 2 mg/L), AMK (amikacin, 8 mg/L), STR (streptomycin, 8 and 16 mg/L, respectively), TOB (tobramycin, 2 mg/L), AMP (ampicillin, 8 mg/L), ETP1 and ETP2 (Ertapenem, 0.064 and 0.5 mg/L, respectively), FOX (cefoxitin, 8 mg/L), TAZ 0.5, TAZ 1, and TAZ 2 (cefazidime, 0.5, 1, and 2 mg/L respectively), CTX 0.25, CTX 1, and CTX 2 (cefotaxime, 0.25, 0.5, and 1 mg/L, respectively), CER1 (ceftiofur, 1 mg/L), CPR (cefpiprome, 1 mg/L), CHL 1 and CHL 2 (chloramphenicol, 8 and 16 mg/L, respectively), TMP (trimethoprim, 2 mg/L), NAL (nalidixic acid, 16 mg/L), CIP 0.32, CIP1, and CIP2 (ciprofloxacin 0.032, 0.064, and 0.5 mg/L, respectively), SUL (Sulfathiazole, 256 mg/L), TET (tetracycline, 8 mg/L).

**Virulence and Resistance Score:** Number of positive virulence factors (a maximum of 22) and resistance to the different classes of antibiotics (maximum of 11).

| Gene Key                          |  |
|-----------------------------------|--|
| Aminoglycosides                   |  |
| Penicillins                       |  |
| Carbacephem                       |  |
| Cephalosporin (Second Generation) |  |
| Cephalosporin (Third Generation)  |  |
| Cephalosporin (Fourth Generation) |  |
| Phenicols                         |  |
| sulphonamides                     |  |
| Quinolones                        |  |
| sulphonamides                     |  |
| Tetracycline                      |  |
| Fimbriae                          |  |
| Adhesion                          |  |
| Serum survival                    |  |
| Siderophores                      |  |
| Haemolysin                        |  |
| Toxin                             |  |
| Capsule                           |  |
| Toxin                             |  |
| Regulator                         |  |
| Proteins                          |  |
| Regulator                         |  |
| Proteins                          |  |

Technical Appendix Figure. Virulence factors and antimicrobial drug resistance gene content of Enteropathogenic *Escherichia coli* (EAEC) isolates, grouped by phylogroup.