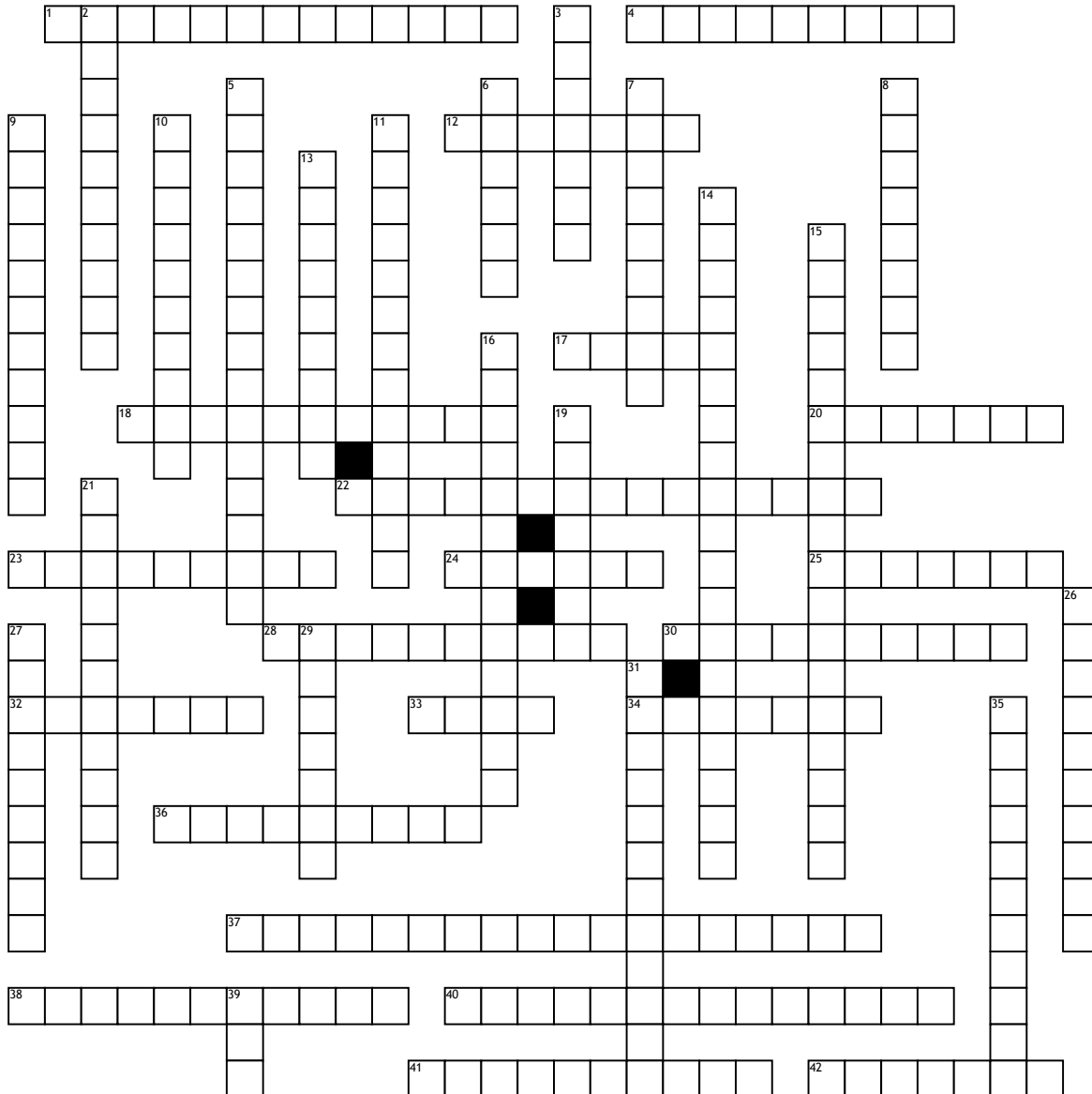


Escherichia coli



Across

1. This is widespread within the genes of the species of *E. coli*
4. Affects the *E. coli* population survival rate of microbial communities
12. Substrate technology that uses an enzyme-substrate complex principles
17. EHEC produce this toxin which leads to cell death by irreparably inhibiting host cell protein synthesis
18. One of the normal stresses to bacteria in a natural environment
20. The most recognized serotype of EHEC of *E. coli*, has caused many outbreaks of water- and food-borne diseases in many countries (separated by a colon)
22. A pathogenic *E. coli* strain that causes extraintestinal diseases
23. The evolution of virulence is linked to this type of sex
24. Factors that include other organisms and competition with other organisms
25. This type of EPEC is recognized as a pathogen
28. Due to repeated experience with antibiotics by the host consumption
30. Common outbreak source worldwide for pathogenic *E. coli* strains
32. Factors that relate to temperature, nutrient and water availability, and solar radiation

33. Many strains of *E. coli* are resistant to this pH environment to pass through the stomach of animals and into the intestines
 34. The environments that pathogenic *E. coli* strains can grow and survive in
 36. This type of *E. coli* is part of the human gut microbiota
 37. The main type of *E. coli* bacterium located in the intestinal tract
 38. The normal non-pathogenic *E. coli* found in the intestinal flora of animals
 40. The strained of *E. coli* that possess invasive properties
 41. Physical characteristics, such as biofilm formation
 42. Country where there was a EHEC outbreak in 2011
- ## Down
2. This adaption, in *E. coli*, stems from phenotypic variation
 3. An adhesive protein on the outer membrane that is encoded by the *eae* gene
 5. This strained of *E. coli* produces one or more of the toxins from the enterotoxin families
 6. In 1997, this type of sequencing analysis was announced for *E. coli*
 7. Diversity that seems to be common among environmental strains
 8. Formed by bacteria on surfaces of aquatic environments

9. *E. coli* does not have enough of this to discriminate against its host sources
10. The location the bacteria is normally found in warm-blooded animals
11. These produce haemorrhagic colitis and kill colonic enterocytes
13. A term that is connected with the presence of specific gene clusters, termed 'pathogenicity islands'
14. *E. coli* belongs to this class
15. *E. coli* is classified as a member of this family
16. One common cause of the outbreaks of disease related to human sources from food
19. This technique was introduced for the first time for *E. coli* bacterium population
21. The genus of *E. coli*
26. In *E. coli*, this gene transfer is critical in new genes
27. *E. coli* has been known to cause this symptom
29. This can be produced using *E. coli* to develop gene manipulation systems
31. EIEC, EHEC, and EAaggEC produce this type of diarrhoea
35. Around the cell, it causes an anoxic environment
39. This many million(s) of deaths a year are related to human pathogenic *E. coli* (spell out number)