**Supplementary File 2: Source of Antimicrobial Resistance (AMR) Observed in Microbes.**

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|  | **Intrinsic** | **Acquired** |
| **Definition** | * Occurs naturally (natural trait) * Species or genus-specific | * A strain that develops resistance to an antimicrobial to which it was previously susceptible * Naturally, present only in certain strains of a species or genus |
| **Mechanisms of antimicrobial resistance acquisition** | Inherent structural or functional characteristics of the bacteria that allow it to tolerate an antimicrobial substance | Vertical gene transmission   * + Spontaneous gene mutation   + Induced gene mutation   Horizontal gene transfer/mutation   * + Bacterial transformation   + Bacterial transduction   + Bacterial conjugation |
| Adapted from: Food and Agriculture Organization of the United Nations Rome, 2016: Available at vhttp://www.fao.org/3/i6209e/i6209e.pdf. | | |