Algorithm 2 KMER Random

1: **function** "KMER Random"(*sequence*)
2:     $KMerDict \leftarrow ()$
3:     **loop**"word in sequence"   ▷ Loop each nucleotide of the sequence
4:         **if** word==N **then**
5:             $r \leftarrow A, U, G, orC$
6:         **else if** word==B **then**
7:             $r \leftarrow U, G, orC$
8:         **else**
9:             Continue
10:         **end if**
11:         $word \leftarrow r$ ▷ Randomly replace word with one of AUGC
12:     **end loop**
13:     $KMerDict \leftarrow CountKMER(sequence)$ ▷ Use traditional way to count Kmerfrequency
14:     **return** $KMerDict$
15: **end function**