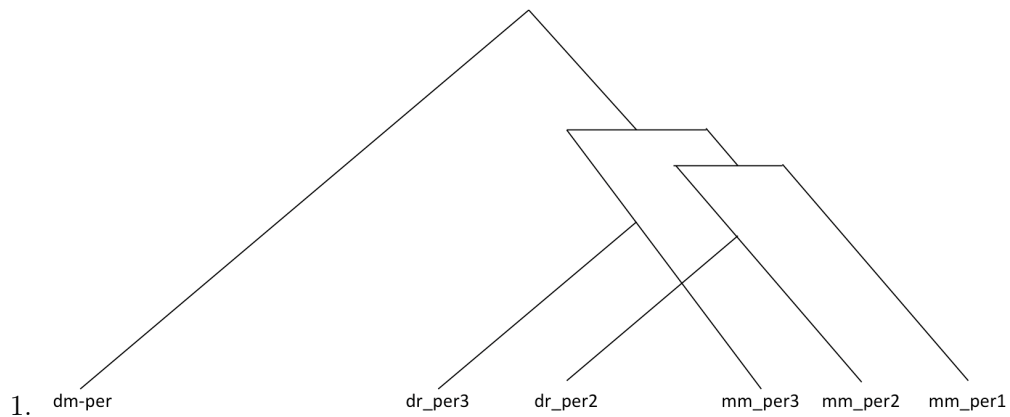


## Series 5

Genomics and bioinformatics - Week 6 - October 23, 2012

### 1 Phylogenetic trees



The gene tree

2.
  - An orthologous pair: **dr\_per2** and **mm\_per2**
  - A paralogous pair in the same species: **mm\_per1** and **mm\_per2**
  - A paralogous pair in different species: **mm\_per1** and **dr\_per2**

### 2 Another HMM

#### 2.1 The Viterbi algorithm

	-	A	T	C
S	1	0	0	0
N	0	0.2	0.079	0.0078
I	0	0.125	0.028	0.0063

The Table

The most probable hidden sequence associated to *ATC* is *NNN*.