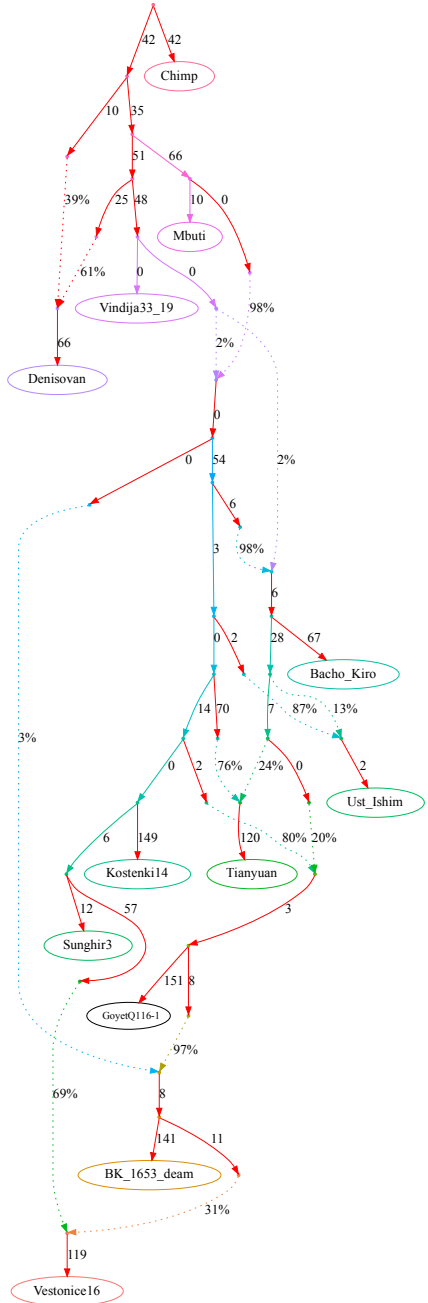**Figure 3–source data 8.** Published admixture graph from Hajdinjak *et al*. (2021) and alternative graphs found with *findGraphs* (12 populations, 8 admixture events). Model parameters (graph edges) that were inferred to be unidentifiable are plotted in red.
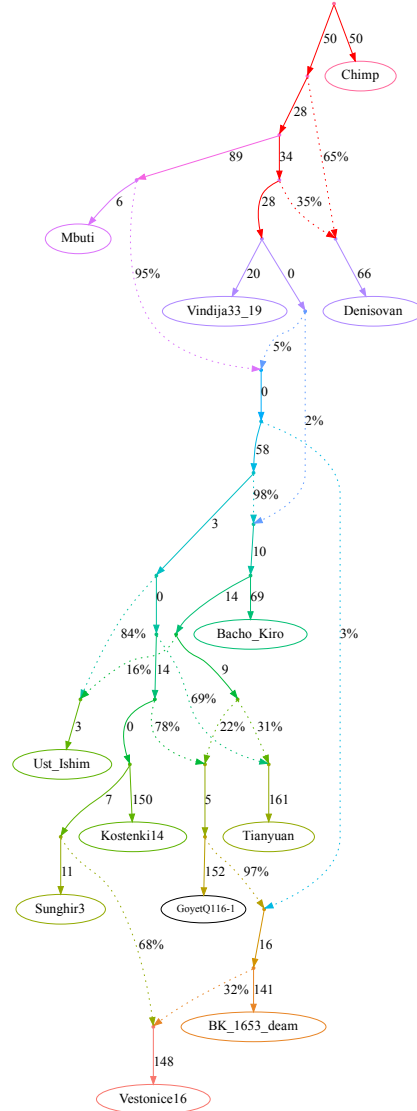
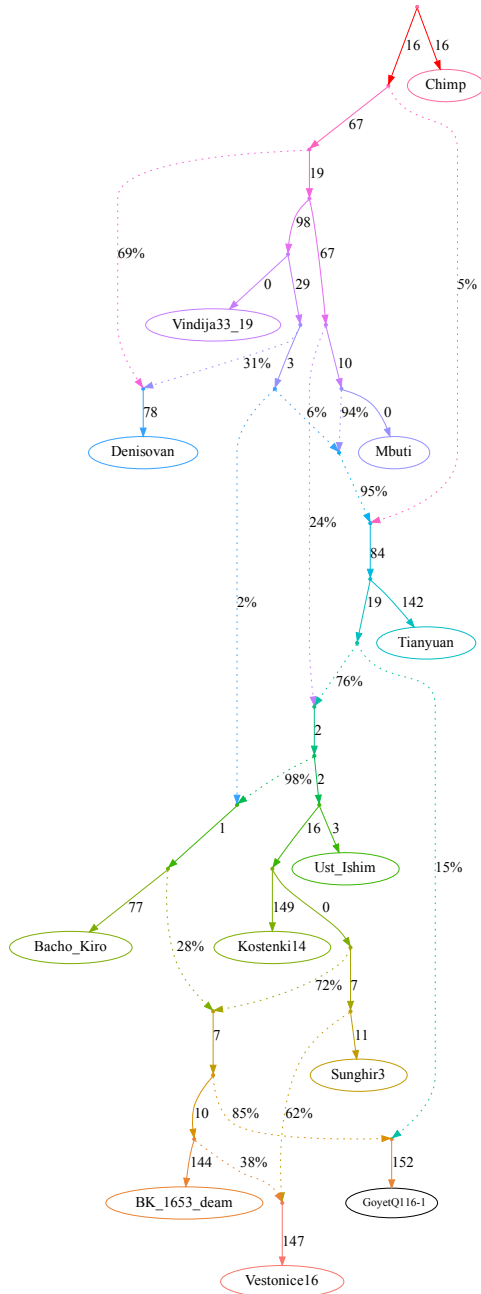**a**, published model

b, published model, simplified

Claims by Hajdinjak *et al*. 2021 relying on the admixture graph:

1) Gene flow from the Bacho Kiro lineage to Ust'-Ishim, Tianyuan, and GoyetQ116-1;

2) the BK1653 individual belonged to a population that was related, but not identical, to that of the GoyetQ116-1 individual;

3) Vestonice is a mixture of a Sunghir-related and a BK1653-related lineage.

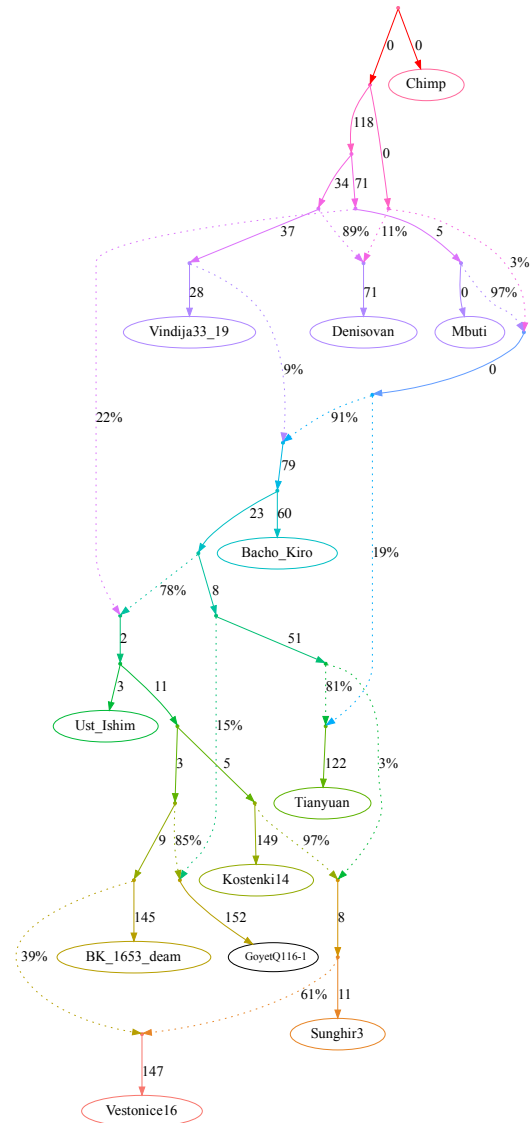**c**, selected alternative models fitting significantly better than the published one

claim 1 partially supported, claims 2&3 supported

claim 1 not supported, claims 2&3 supported
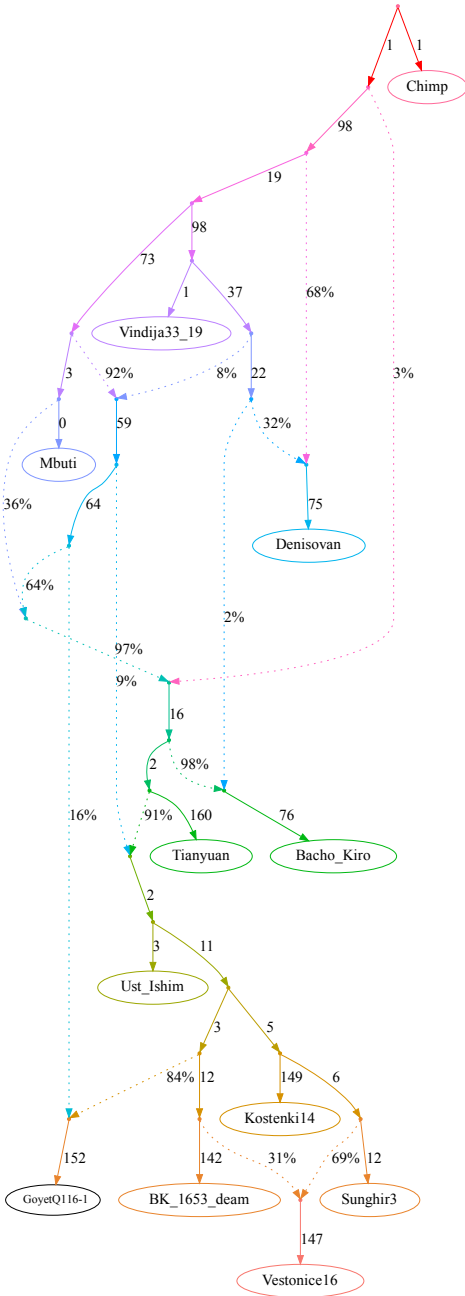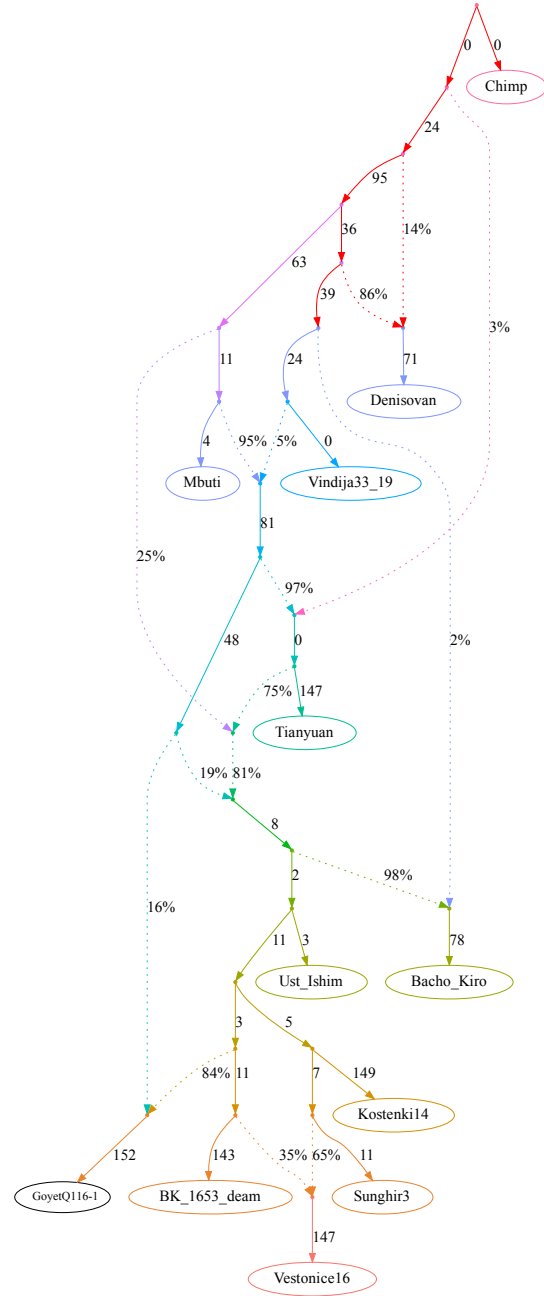
LL=34.9, WR=2.7, admix=8

LL=35.4, WR=2.58, admix=8

claim 1 not supported, claims 2&3 supported

LL=35.4, WR=2.7, admix=8

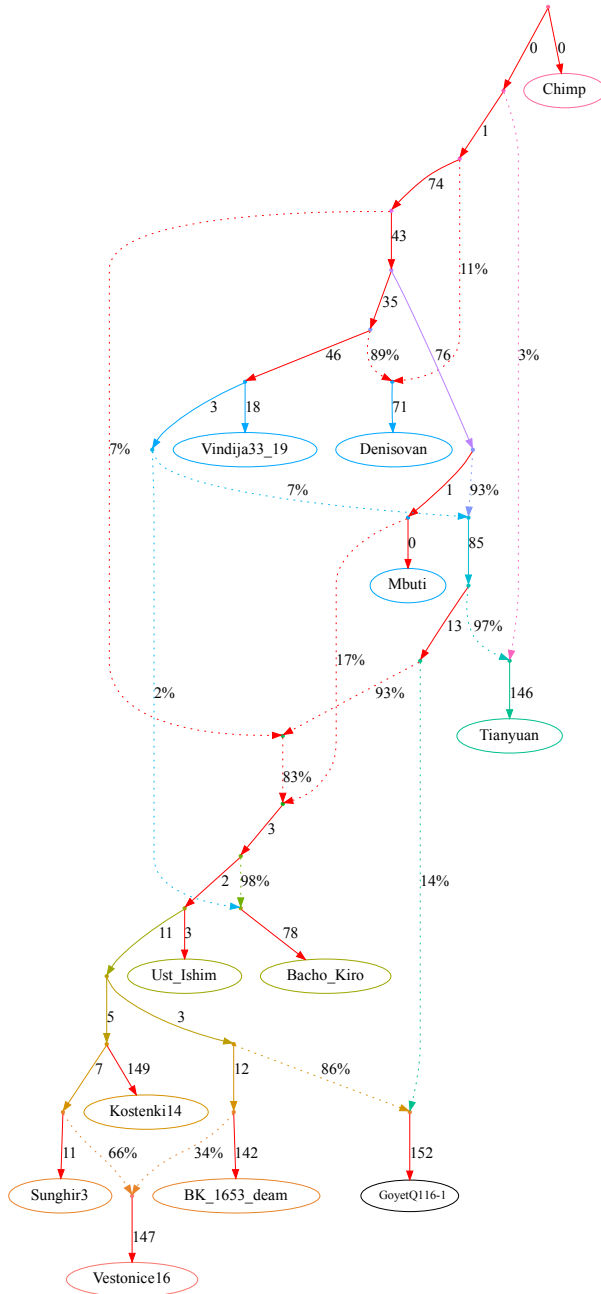claim 1 not supported, claims 2&3 supported

LL=35.6, WR=2.7, admix=8

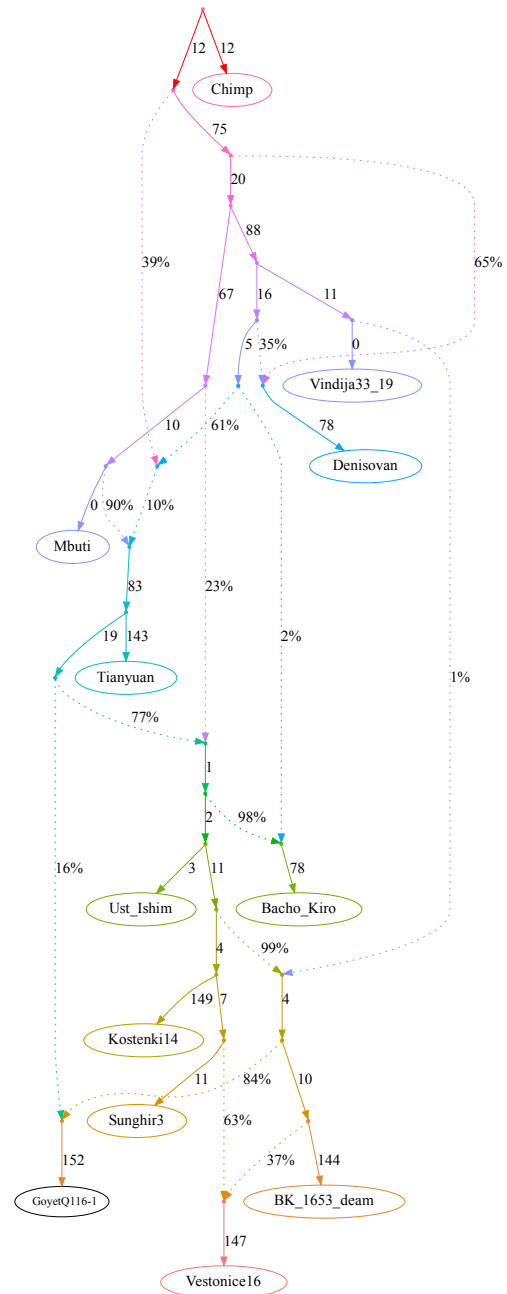**d**, selected alternative models fitting significantly better than the published one

claim 1 not supported, claims 2&3 supported

claim 1 not supported, claims 2&3 supported

LL=35.8, WR=2.7, admix=8

LL=35.9, WR=2.75, admix=8

LL=34.6, WR=3.40, admix=8

LL=34.6, WR=3.52, admix=8

e, selected alternative models fitting significantly better than the published one
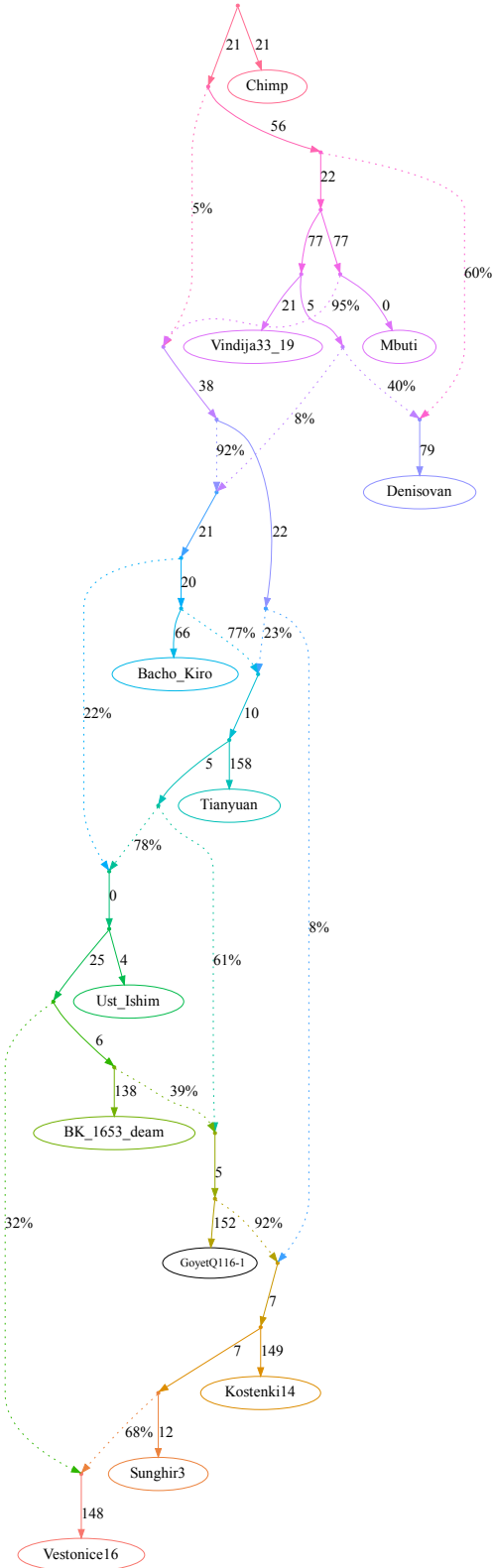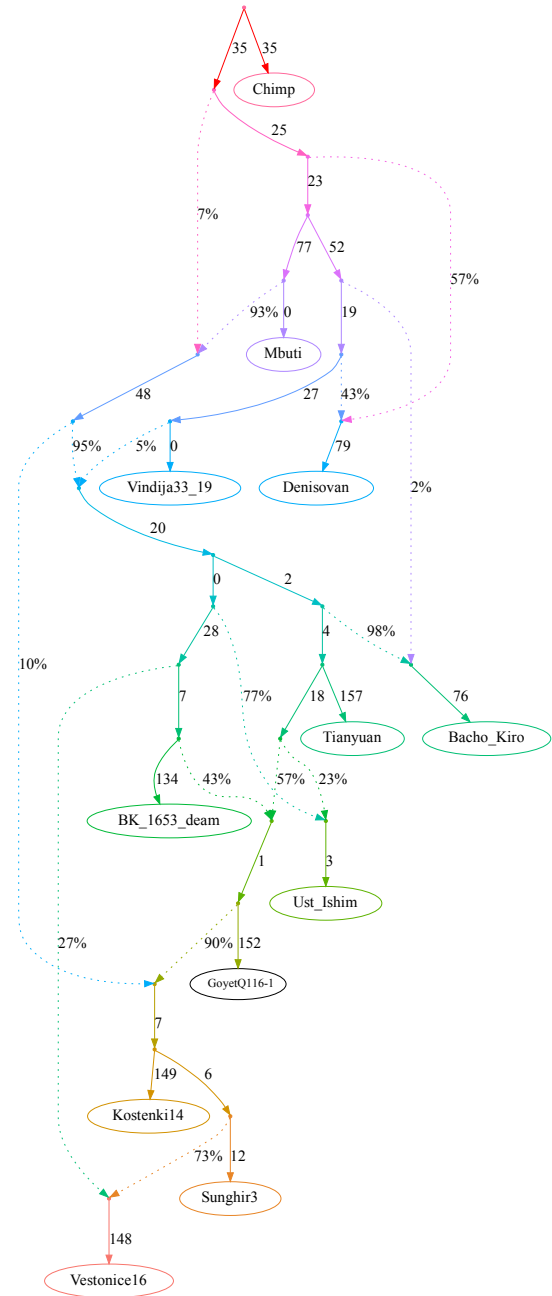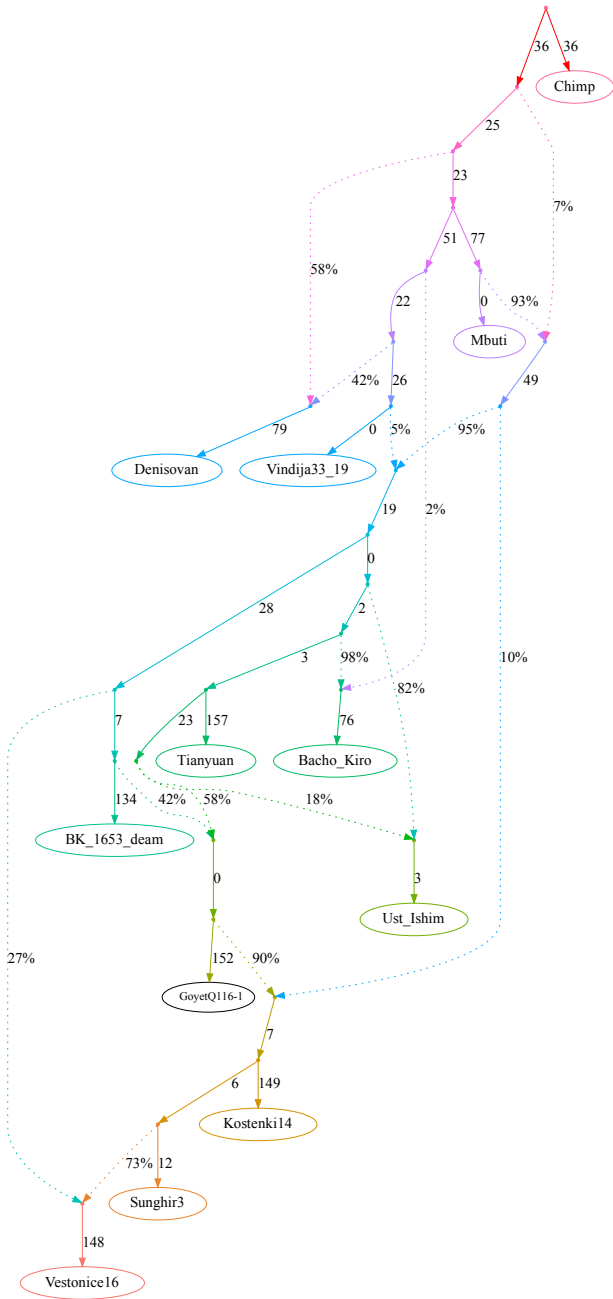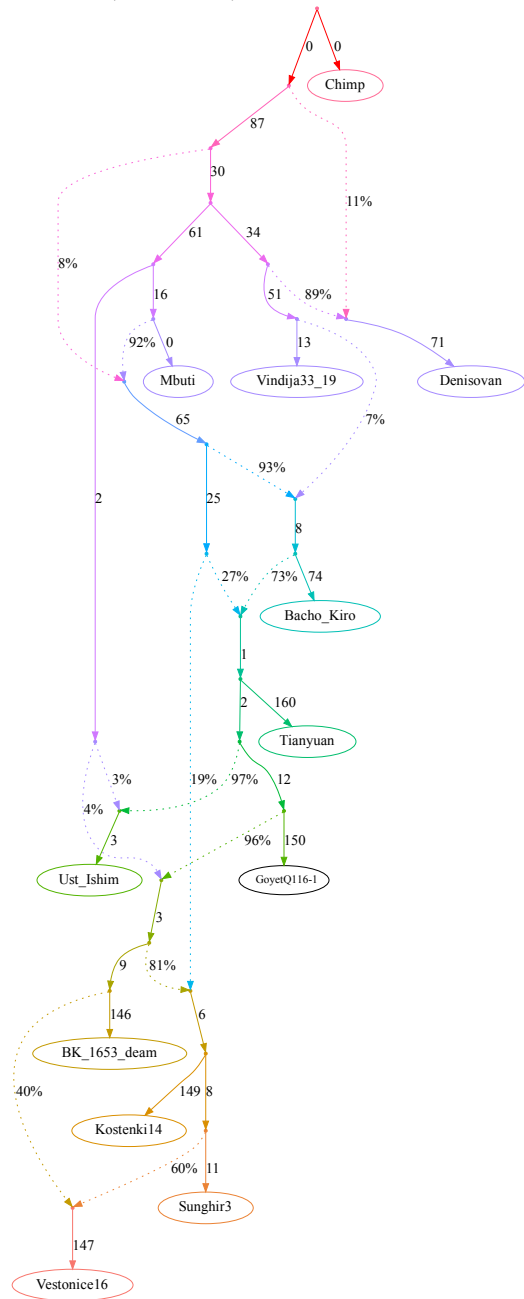
claims 1&2 not supported, claim 3 supported

claims 1&2 not supported, claim 3 supported

LL=34.7, WR=3.52, admix=8

LL=35.7, WR=3.52, admix=8

claims 1&2 not supported, claim 3 supported

LL=36.2, WR=3.52, admix=8