

# The Värmland-Hedmark Cluster and a Neighboring Branch (July 2024)

## Confidence intervals for age estimates

The age estimates for A1-A9 in the tree are from YFull (YTree v12.02.00), and those for A3 and A10-A11 are from FTDNA (July 31, 2024); thus, for A3, age estimates from both companies are provided. Unless otherwise indicated, all years shown are A.D. Below are confidence intervals at the 95% level:

- 95% CI**
- ◇ **A1:** 924 — 1624
  - ◇ **A2:** 1174 — 1524
  - ◇ **A3:**  $\begin{cases} 476 \text{ B.C.} - 674 & (\text{YFull}) \\ 129 \text{ B.C.} - 729 & (\text{FTDNA}) \end{cases}$
  - ◇ **A4:** 324 — 1274
  - ◇ **A5:** 924 — 1749
  - ◇ **A7:** 1174 — 1524
  - ◇ **A8:** 1174 — 1524
  - ◇ **A9:** 1124 — 1849
  - ◇ **A10:** 716 — 1566
  - ◇ **A11:** 1230 — 1704

## SNPs that define the branches

The Värmland-Hedmark Cluster is a twig on the R1b branch of the human Y-DNA haplotree: R1b → M269 → U106 → Z18 → S11601 → Y112538 → Y130179. For more information, see [www.johanlagerlof.com/gengen](http://www.johanlagerlof.com/gengen). The branches shown in the tree are defined by the SNPs listed below (note that A6 does not exist).<sup>a</sup>

### Defining SNPs

- ◇ **A1:** Y86344, Y107658\*
- ◇ **A2:** Y100873\*, Y128033, Y101814\*, Y103246, Y130179, Y83455, Y125815\*
- ◇ **A3:** Y112538
- ◇ **A4:** BY71612, Y159325, BY116275, BY146620, BY78202, BY99722, BY100142, BY102070
- ◇ **A5:** FT146431
- ◇ **A7:** A25847\*
- ◇ **A8:** A25843, A25844, A25845, Y126692(H)\*
- ◇ **A9:** FTA19875\*, FTA18226(H), A29538(H)\*
- ◇ **A10:** FT5016, FT5166, FT5167, FT5193, FT5729
- ◇ **A11:** BY106437, BY112147, BY134583

<sup>a</sup>An asterisk indicates that the SNP is located outside of the so-called combBED region of the Y chromosome, and it is therefore not used by YFull for age estimation; an "(H)" means that the SNP is located in a homologous region (i.e., one that is similar to other regions on the Y chromosome or on other chromosomes) and therefore is less reliable.

