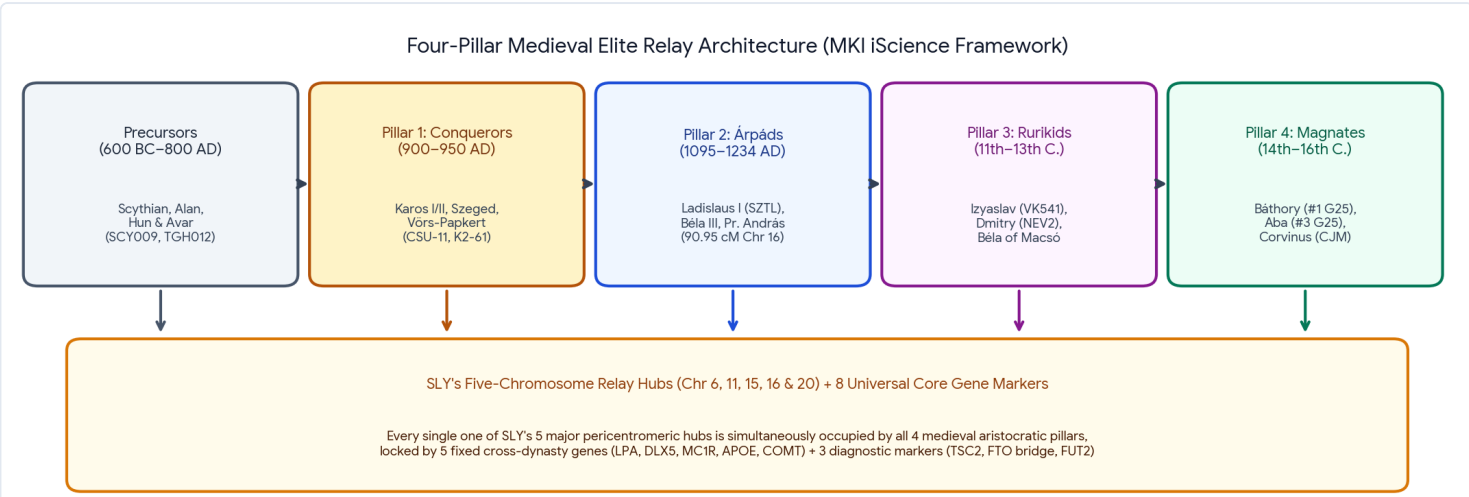
SLY ARCHAEOGENETIC MASTER DOSSIER (V8.1) • SECTION 5 DEEP DIVE

Five-Chromosome Relay & Four-Pillar Medieval Elite Matrix

Subject: SLY (BXWEAO_scaled | GEDmatch ZZ9376049) • Mapping 130+ Ancient Samples Across 10 Historical Strata (MKI iScience Framework)

What This Matrix Shows (In Plain Terms): Rather than appearing as isolated, one-off hits, SLY's shared segments stack vertically across **five primary pericentromeric chromosome hubs (Chr 6, 11, 15, 16, and 20)**—passing continuously from Iron Age steppe precursors through **10th-century Magyar Conquerors**, **Árpád Royals**, **Kievan Rus' Rurikids**, and **Late-Medieval Carpathian Magnates (Báthory, House of Aba, and Corvinus)**.



1. Complete Five-Chromosome Relay Matrix Across All Four Pillars (GRCh37)

Chr Hub	Precursors (Iron Age – Migration)	Pillar 1: 10th-C. Conquerors (900–950 AD)	Pillar 2: Árpád Royals	Pillar 3: Rurikids	Pillar 4: Magnates (Aba, Báthory, Corvinus)
Chr 11 ~47.9–61.6 Mb	Scythians (SCY009, UKR035AB, UKR113, UKR132); Alan DA162; Huns (TGH012, VZ-12673); Avars (KUP005, KUP014)	**Szeged CSU-11** (16.55 cM, 365 SNPs); TCS-18 (263 SNPs); BK-2 (12.52 cM); SP-2 (25.0 cM); K1-10; SZAK-6; LB-1432; VPB-310	**Béla III** (11.6 cM, 243 SNPs); **Prince András HU52** (14.88 cM, 361 SNPs); **Ladislaus I**; **Béla of Macsó**	**VK541** (100% *MYRF–FADS1/2*); **NEV2**	**Aba** (HUAS261F, HUASper57); **Báthory** (PER03-1, PER09); **Corvinus** (CJM)
Chr 16 ~30.5–48.2 Mb *(15.0% Volga-Ural)*	Cimmerian CIM359; Scythians (SCY009, UKR035AB, I25525); Alan DA162; Huns (TGH012, VZ-12673); Avars (KUP014, KUP018)	**Vörs-Papkert VPB-310** (180 SNPs; #9 overall match, 62.87 cM); **Karos I K1-1** (8.46 cM); **Karos II K2-61** (26.53 cM); SH-81; SE-114	**Ladislaus I SZTL** (90.95 cM, 380 SNPs); **Béla III** (28.57 cM, 112 SNPs); **Prince András HU52**	**VK541 & VK542** (100% *TSC2–ABCC11–MC1R*)	**Aba** (HUAS261F, 22.95 cM); **Báthory** (PER01, PER05, PER09); **Corvinus** (CJM)
Chr 6 ~58.6–62.7 Mb	CIM359; SCY009; UKR035AB; DA162; TGH012; VZ-12673; KUP005; KUP014; KUP016; RKC018	**Vörs-Papkert VPB-310** (34.79 cM, 183 SNPs); **Sándorfalva SE-64** (142 SNPs); **Bugyi BK-2** (106 SNPs); CSU-11; K1-1; K2-61	**Ladislaus I SZTL** (17.9 cM, 104 SNPs); **Béla III**; **HU52**; **Béla of Macsó** (*OPRM1* GG)	**Izyaslav VK541** (10.72 cM, 124 SNPs; *HFE, IFNGR1, LPA, IRF4*)	**Aba** (HUAS82, HUAS261); **Báthory** (PER01, PER05, PER09); **Corvinus** (CJM)
Chr 20 ~25.4 Mb–20q	SCY009; UKR035AB; UKR109; DA162; TGH019; TGH068; VZ-12673; KFJ041; KUP005; KUP014	**Sándorfalva SE-64** (39.23 cM, 157 SNPs); **Szeged CSU-11** (6.36 cM, 175 SNPs); **Szakony SZAK-6** (121 SNPs); K1-1	**Ladislaus I SZTL** (29.37 cM, 110 SNPs)	**Izyaslav VK541** (*PRNP* AA)	**Aba** (HUAS82, 341, 194B, 581); **Báthory** (PER03-1 117 SNPs, PER09); **Corvinus** (CJM, 212 SNPs)
Chr 15 ~42.6–46.4 Mb *(1.6% Siberian)*	CIM359; SCY009; UKR035AB; UKR113; DA162; TGH012; VZ-12673; KFJ041; KUP005; KUP014	**Szakony SZAK-6** (122 SNPs); **Karos I K1-1**; **Karos II K2-61**	**Béla III** (7.0 cM, 280 SNPs); **Ladislaus I SZTL**; **Prince András HU52**	**VK541 & NEV2** (*IGF1R, HERC2/OCA2, SLC24A5*)	**Aba** (HUAS82, 261, 341); **Báthory** (PER01, PER05 5.2 cM, PER09); **Corvinus** (CJM)

2. Universal Cross-Dynasty Core Markers & Two-Stratum Diagnostic Split (Section 5B)

Gene & SNP ID	Chr	GRCh37 Pos	SLY Call	Conqueror / Árpád	Aba / Báthory / Corvinus	Diagnostic Role & Pathway
LPA (rs10455872)	6	161,010,118	**AA**	Karos I, CSU-11, SZTL: **AA**	AA / Full / AA	**Core #1** Chr 6 elite sweep anchor
DLX5 (rs9769385)	7	96,651,985	**GG**	Karos I, CSU-11, SZTL: **GG**	GG / Full / GG	**Core #2** #1 G25 steppe Chr 7 anchor
MC1R (rs1110400)	16	89,986,130	**TT**	CSU-11, SZTL, Béla III: **TT**	TT / Full / TT	**Core #3** Chr 16 steppe spine anchor
APOE (rs429358)	19	45,411,941	**TT**	CSU-11: **TT** | SZTL: CT	TT / Full / TT	**Core #4** Lipid / ε3 homozygous anchor
COMT (rs4680)	22	19,951,271	**GG**	Karos I, SZTL: **GG**	GG / Full / GG	**Core #5** Flanks 3.9 cM SZTL block
TSC2 (rs45475793)	16	2,110,815	**GG**	CSU-11, SZTL, Béla III: **GG**	— / Full / GG	**ROH Core** Inside 85-SNP unbroken SZTL ROH
FTO (rs9939609)	16	53,820,527	**AT**	CSU-11: **AA** | K2-61 & SZTL: **TT**	— / — / —	**Split Bridge** Unites both Conqueror/Árpád strata
FUT2 (rs601338)	19	49,206,674	**AA**	CSU-11: **AA** (Sole match)	— / — / —	**Uralic Core** Finno-Ugric non-secretor marker

3. Key Takeaways for Explaining the Four-Pillar Matrix

1. Complete 4-Pillar Saturation

Every single one of SLY's five pericentromeric relay hubs (**Chr 6, 11, 15, 16, 20**) is populated simultaneously by **all four medieval elite pillars**—Conquerors, Árpáds, Rurikids, and Late-Medieval Magnates—showing unbroken multi-century haplotype preservation.

2. The FTO Heterozygous Bridge

On Chromosome 16, SLY carries **AT** at FTO (`rs9939609`)—inheriting the **A** allele shared with Szeged Conqueror `CSU-11` (AA) on one chromosome copy and the **T** allele shared with Karos II (`K2-61`) and King Ladislaus I (`SZTL`, TT) on the other.

3. #1 Báthory & #3 Aba G25 Fit

Out of **2,760 ancient global populations**, SLY's full genome ranks **#1 closest to Romania_Pericei_Bathory (0.0162)** and **#3 closest to Hungary_Abasar_Aba_Medieval (0.0190)**—the exact Late-Medieval magnate houses where these four pillars converged.

Source Audit Reference: Extracted and formatted from *SLY Archaeogenetic Master Dossier (v8.1 Consolidated, Section 5 & Section 6)* • MKI iScience Study Reference: `PRJEB96153` • Assembly: GRCh37 (hg19).