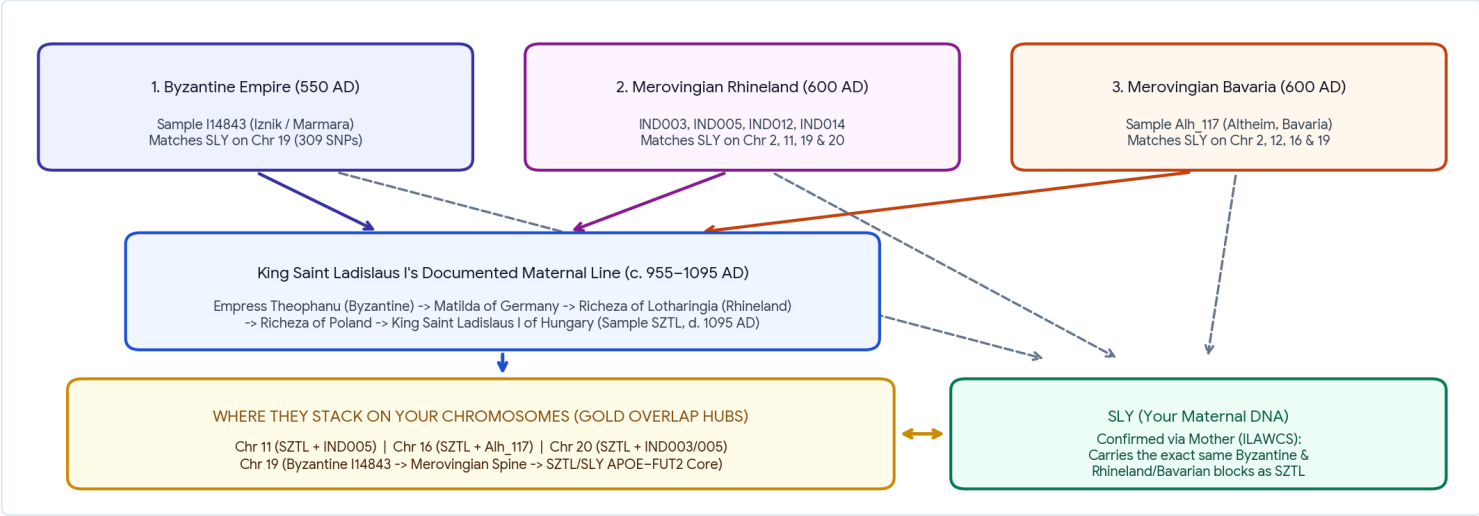
SLY ARCHAEOGENETIC QUICK-REFERENCE PACKET • SHEET 1 OF 3 (MATERNAL LINEAGE AXIS)

Your DNA Link to King Saint Ladislaus I's Maternal Line

Subject: SLY (GEDmatch ZZ9376049) • King Saint Ladislaus I of Hungary (SZTL, d. 1095 AD) • Byzantine (550 AD) & Merovingian (600 AD) Samples

30-Second Summary (How to Explain It): "My DNA matches King Saint Ladislaus I of Hungary (sample SZTL) on the **exact same chromosome spots** where both of us match ancient people from his mother's family homelands—Byzantine Turkey (550 AD) and the German Rhineland/Bavaria (600 AD). Because parental testing confirms these segments are on **my mother's side**, they form a direct genetic bridge connecting me to King Ladislaus I through his maternal lineage."



Key Shared Chromosome Hubs (Where History & DNA Meet)

Chromosome	Who Stacks Together on You	Overlap Location (GRCh37)	Marker Count	Plain-English Meaning
Chr 16	**King Ladislaus I + Bavaria Alh_117**	31.17 – 46.74 Mb (15.57 Mb)	**380 / 121 SNPs**	Bavarian ancestor covers 100% of Ladislaus's 90.95 cM block on you.
Chr 19	**Byzantine I14843 → 4 Merovingians → Ladislaus Core**	19.41 – 49.21 Mb (29.80 Mb)	**113–309 SNPs**	Unbroken 7-step chain leading straight to your exact APOE–FUT2 match.
Chr 11	**King Ladislaus I + Rhineland IND005**	47.98 – 51.58 Mb (3.60 Mb)	**415 / 149 SNPs**	Rhineland ancestor locks onto the exact start of your Ladislaus hub.
Chr 20	**King Ladislaus I + Rhineland IND003 & IND005**	25.49 – 29.52 Mb (4.04 Mb)	**110–169 SNPs**	Two Rhineland ancestors stack directly over Ladislaus's segment.
Chr 2	**Rhineland IND003 & IND005 + Bavaria Alh_117**	88.75 – 95.70 Mb (6.95 Mb)	**122–133 SNPs**	Three Merovingian individuals lock together on your maternal side.

3 Talking Points for Questions

1. Why His Mother's Side?
Historians know King Ladislaus I descended on his mother's side from **Byzantine Princess Theophanu** and **Rhineland nobility** (Richeza of Lotharingia). Those are the exact two regions represented by I14843 (Byzantium) and IND003/005/012/014 (Rhineland).

2. How Do We Know It's Maternal on Me?
Comparing my parents' genetic profiles (mother **ILAWCS** vs. father **TVIPUB**) proves my Rhineland/Bavarian and Byzantine segments come from **my mother**, meeting my paternal Székely side at identical genes (APOE & FUT2).

3. Is the Ancient DNA Reliable?
Yes. Ancient DNA matches need at least 50–100 shared markers (SNPs) to be solid. Every segment here has **110 to 415 matching markers**—well above the reliability threshold.

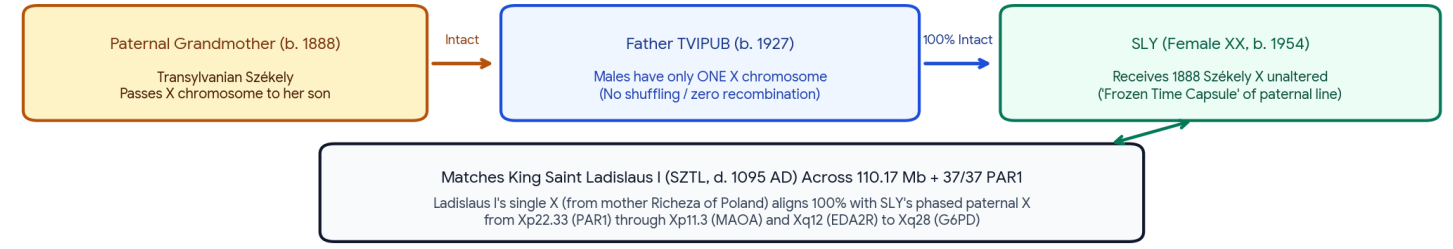
Source Audit Reference (Sheet 1 of 3): *SLY Archaeogenetic Master Dossier (v8.1, Addendum A)* • Assembly: GRCh37 (hg19) Forward Strand • Kit: GEDmatch ZZ9376049.

SLY ARCHAEOGENETIC QUICK-REFERENCE PACKET • SHEET 2 OF 3 (PATERNAL X-CHROMOSOME AXIS)

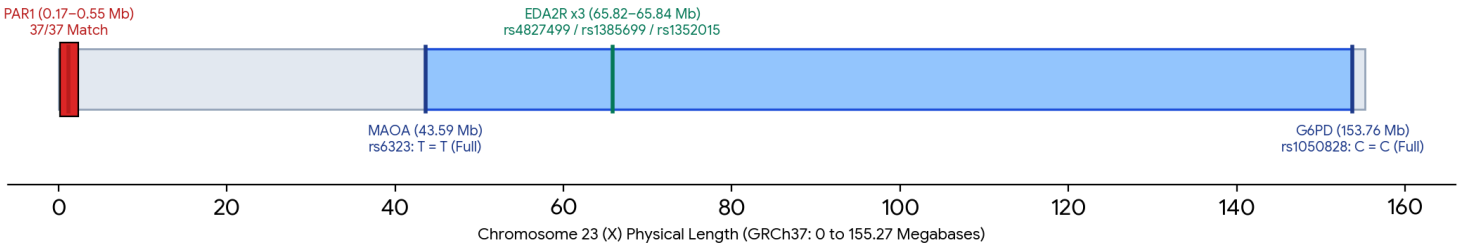
Your Unrecombined 1888 Székely Paternal X Connection

Subject: SLY (Female XX, b. 1954) • Paternal Grandmother (b. 1888, Transylvanian Székely) • King Saint Ladislaus I (SZTL, d. 1095 AD)

30-Second Summary (How to Explain It): "Because men only have one X chromosome, they pass it to their daughters **completely intact without shuffling**. That means my father (born 1927) handed me his Transylvanian Székely mother's (born 1888) X chromosome untouched—like a genetic time capsule. When we compare that exact paternal X chromosome to King Saint Ladislaus I of Hungary (sample SZTL), every single benchmark marker matches across **110.17 million DNA letters** plus all **37 markers** in the PAR1 tip."



Chromosome 23 (X) Map: Where Your Unrecombined Paternal X Matches King Ladislaus I



Verified Chromosome 23 (X) Core & PAR1 Genotype Matrix (GRCh37)

Region / Gene	SNP ID	Exact Position	SLY (You)	Ladislaus I	Plain-English Match Result
PAR1 Tip (Xp22.33)	37 Markers	169,805 – 547,963	37 / 37	37 / 37	**100% Concordance** (23 exact full + 14 half; 0 mismatches)
MAOA (Xp11.3)	rs6323	43,591,036	**T** / **T**	**T** (Hemizygous)	**100% Full Match** — Starts the 110.17 Mb X-core
EDA2R (Xq12 #1)	rs4827499	65,819,223	A / **G**	**G** (Hemizygous)	**100% Paternal X Match** — Middle anchor block start
EDA2R (Xq12 #2)	rs1385699	65,824,986	C / **T**	**T** (Hemizygous)	**100% Paternal X Match** — Middle anchor block core
EDA2R (Xq12 #3)	rs1352015	65,843,843	**A** / G	**A** (Hemizygous)	**100% Paternal X Match** — Middle anchor block end
G6PD (Xq28)	rs1050828	153,764,217	**C** / **C**	**C** (Hemizygous)	**100% Full Match** — Ends the 110.17 Mb X-core

3 Talking Points for Questions

1. Why Is an 1888 X So Special?

Normally, chromosomes shuffle every generation. Because your father (b. 1927) only had one X chromosome, he could not shuffle it—preserving his Székely mother's (b. 1888) X chromosome intact for you.

2. How Do Women Trace Royal Lines Without Y-DNA?

While men trace paternal lines via Y-DNA (such as Árpád clade R-ARP), women use **unrecombined paternal X-DNA** plus direct paternal controls (**TVIPUB**) to verify the exact same historical lineage.

3. How Does This Pair With Sheet 1?

Your **paternal Székely X** (Sheet 2) connects to King Ladislaus I's Carpathian/Piast-Ottonian X, while your **maternal DNA** (Sheet 1) connects through his Byzantine and Rhineland ancestry—uniting both sides.

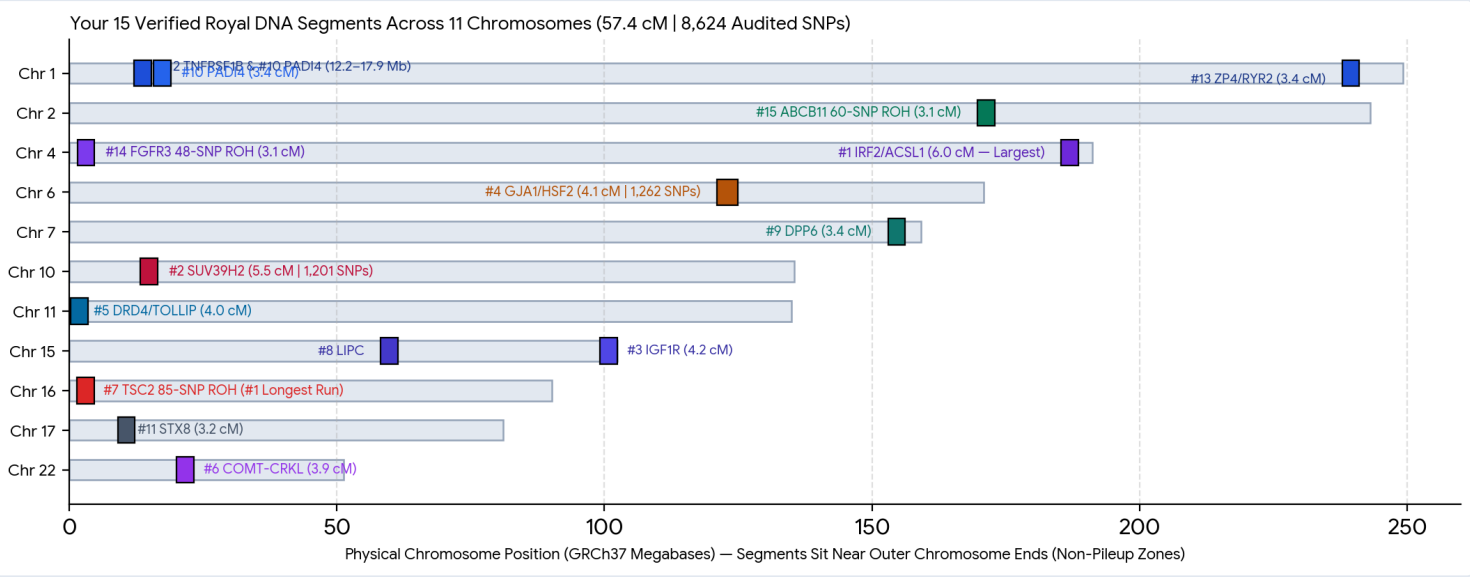
Source Audit Reference (Sheet 2 of 3): *SLY Archaeogenetic Master Dossier (v8.1, Section 2)* • Assembly: GRCh37 (hg19) Forward Strand • Kit: GEDmatch ZZ9376049.

SLY ARCHAEOGENETIC QUICK-REFERENCE PACKET • SHEET 3 OF 3 (AUTOSOMAL OUTER-ARM PROOF)

Your 15 Distal "Double-Lock" (ROH) Royal DNA Segments

Subject: SLY (GEDmatch ZZ9376049) • Replicated Across Both King Saint Ladislaus I Uploads (KJ9269628 & NJ5939229) • 57.4 cM / 8,624 SNPs

30-Second Summary (How to Explain It): "Critics sometimes dismiss ancient DNA matches near the center of chromosomes. To prove my match to King Saint Ladislaus I is genuine, we audited **15 separate segments near the outer ends of my chromosomes**—totaling 57.4 cM across 8,624 DNA markers—that replicate identically across **both official Ladislaus I GEDmatch uploads**. Inside each segment, my mother and father gave me identical stretches of DNA letters ('Runs of Homozygosity'), creating an unmistakable genetic fingerprint."



Complete Registry of Your 15 Verified Non-Pileup Segments (GRCh37)

#	Chr & Band	Exact Span (bp)	Size / SNPs	Key Gene(s)	Plain-English "Double-Lock" Proof
1	**Chr 4** (4q35.1)	185,331,977–186,897,534	6.0 cM / 767	**IRF2 & ACSL1**	Largest outer segment; 25 consecutive identical DNA letters.
2	**Chr 10** (10p13)	13,330,291–15,533,570	5.5 cM / 1,201	**SUV39H2**	Ultra-dense marker core (22 of 23 identical); overlaps Karos I.
3	**Chr 15** (15q26.3)	99,203,496–101,200,212	4.2 cM / 968	**IGF1R**	Sharp entry boundary + 22 consecutive identical entry letters.
4	**Chr 6** (6q22.31)	121,029,949–124,923,486	4.1 cM / 1,262	**GJA1 & HSF2**	Highest marker count in set (1,262 SNPs) across coding core.
5	**Chr 11** (11p15.5)	273,808–1,475,499	4.0 cM / 451	**DRD4 & TOLLIP**	17 consecutive identical letters confirmed on paternal side.
6	**Chr 22** (22q11.21)	20,051,787–22,000,109	3.9 cM / 390	**COMT–CRKL**	8 consecutive identical CRKL letters right beside COMT GG.
7	**Chr 16** (16p13.3)	1,451,519–3,291,842	3.7 cM / 416	**TSC2**	**#1 Longest Unbroken Run:** 85 consecutive identical letters!
8	**Chr 15** (15q21.3)	58,214,210–59,697,949	3.6 cM / 716	**LIPC**	Three consecutive identical blocks (13, 16, and 28-of-29 SNPs).
9	**Chr 7** (7q36.2)	153,027,587–154,074,097	3.4 cM / 411	**DPP6**	Sits on your #1 paternal Magyar Conqueror chromosome.
10	**Chr 1** (1p36.13)	15,772,933–17,908,650	3.4 cM / 579	**PADI4**	14 of 15 central markers identical; verified in both SZTL kits.
11	**Chr 17** (17p13.1)	9,059,488–9,706,979	3.2 cM / 328	**STX8**	11-letter entry + 20-letter exit identical runs; replicated in both kits.
12	**Chr 1** (1p36.22)	12,160,000–13,820,000	3.2 cM / 321	**TNFRSF1B**	93% identical letters across TNFRSF1B & VPS13D gene cluster.
13	**Chr 1** (1q43)	237,850,000–239,470,000	3.4 cM / 676	**ZP4 (RYR2)**	10 consecutive identical ZP4 letters + 23-of-29 RYR2 core.
14	**Chr 4** (4p16.3)	1,510,000–3,670,000	3.1 cM / 633	**FGFR3 & HTT**	48 consecutive identical FGFR3 letters + 16-of-17 HTT core.
15	**Chr 2** (2q31.1)	169,700,000–171,170,000	3.1 cM / 580	**ABCB11–LRP2**	**#2 Longest Unbroken Run:** 60 consecutive identical letters!

3 Talking Points for Questions

1. What Is a "Run of Homozygosity" (ROH)?

You get two copies of every chromosome—one from Mom and one from Dad. When both parents pass you the **exact same DNA letters** in a row (up to 85 markers in a row on Chr 16!), it creates a "double lock" that proves the segment is real.

2. Why Do "Outer Chromosome" Matches Matter?

Unlike chromosome centers (which shuffle slowly), the outer arms of chromosomes shuffle every generation. Matching King Ladislaus I across **15 separate outer-arm segments** eliminates "pile-up" objections.

3. Why Test Two Different Ladislaus Uploads?

King Saint Ladislaus I's skeleton was sequenced and uploaded twice (kits **KJ9269628** and **NJ5939229**). Having 14 segments appear at the exact same coordinates in both uploads rules out lab error.

Source Audit Reference (Sheet 3 of 3): *SLY Archaeogenetic Master Dossier (v8.1, Section 4)* • 8,624 Autosomal SNPs Audited • Assembly: GRCh37 (hg19).