

Table S1: The table below shows all isotopic results from the subjects tested. Radiocarbon values are expressed as FmC followed by propagated error from analyses. The IRMS concentrations and signature values (as %C, %N, $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$) and C/N ratios are also provided. To estimate the nails' positions alongside the hair strand, we used the average growth rate information obtained in the literature (as mentioned in the main text). Rat keratin tissues were processed and measured as bulk material.

Subject	Fingernail Reference (calculated position along hair length)	Hair length (from root in cm)	FmC	FmC Error (+/-)	%C	%N	$\delta^{13}\text{C}$ (‰)	$\delta^{15}\text{N}$ (‰)	C/N (Atomic)
Human (A)	-----	3	1.0290	0.0020	47.2%	16.0%	-18.3	9.0	3.43
	-----	4	1.0325	0.0022	47.6%	16.1%	-18.1	8.8	3.46
	-----	5	1.0361	0.0022	47.7%	16.0%	-18.3	8.7	3.49
	5	-----	1.0416	0.0012	47.8%	16.3%	-18.6	9.6	3.42
	-----	6	1.0334	0.0018	47.1%	15.6%	-18.4	9.0	3.53
	-----	7	1.0320	0.0018	50.3%	18.9%	-18.9	8.9	3.74
-----	8	1.0361	0.0020	50.6%	16.0%	-18.7	9.0	3.70	
Human (B)	-----	4	1.0232	0.0018	48.0%	13.8%	-19.0	9.4	4.05
	-----	5	1.0281	0.0018	45.8%	12.0%	-19.4	9.5	4.45
	-----	6	1.0315	0.0018	48.9%	13.5%	-19.2	9.4	4.24
	6	-----	1.0444	0.0019	47.1%	16.0%	-18.4	9.4	3.42
	-----	7	1.0261	0.0018	49.4%	12.7%	-19.5	9.3	4.55
	-----	8	1.0267	0.0018	50.4%	12.9%	-19.5	9.3	4.56
Human (C)	-----	1	1.0287	0.0034	-----	-----	-----	-----	-----
	-----	2	1.0361	0.0020	48.7%	16.6%	-18.0	8.6	3.42
	-----	3	1.0348	0.0029	48.4%	16.5%	-18.1	8.5	3.42
	3	-----	1.0408	0.0012	49.5%	16.8%	-18.4	8.7	3.44
	-----	4	1.0347	0.0021	49.7%	16.9%	-18.0	8.3	3.43
Human (D)	-----	4	1.0341	0.0021	40.8%	13.8%	-16.2	9.4	3.44
	-----	5	1.0385	0.0019	45.6%	15.3%	-16.0	9.2	3.47
	-----	6	1.0336	0.0020	45.4%	15.3%	-15.8	9.4	3.47
	6	-----	1.0445	0.0012	46.4%	15.8%	-16.2	10.0	3.42
	-----	7	1.0322	0.0022	45.9%	15.4%	-15.9	9.3	3.49
	-----	8	1.0359	0.0020	46.0%	15.4%	-15.9	9.3	3.48
Rat (1)	Nail (I)		1.0394	0.0020	44.3%	15.1%	-19.9	3.4	3.42
	Nail (II)		1.0359	0.0021					
	Bulk hair (I)		1.0393	0.0018	46.7%	15.0%	-19.7	3.5	3.63
	Bulk hair (II)		1.0388	0.0017					
Rat (2)	Nail (I)		1.0390	0.0021	44.9%	15.4%	-19.8	4.3	3.41
	Nail (II)		1.0404	0.0021					
	Bulk hair (I)		1.0380	0.0020	46.7%	14.9%	-19.6	4.7	3.59
	Bulk hair (II)		1.0351	0.0021					
Rat (3)	Nail (I)		1.0383	0.0020	43.8%	15.0%	-19.6	4.7	3.40
	Nail (II)		1.0382	0.0021					
	Bulk hair (I)		1.0379	0.0021	46.1%	14.9%	-19.9	5.6	3.59
	Bulk hair (II)		1.0387	0.0021					

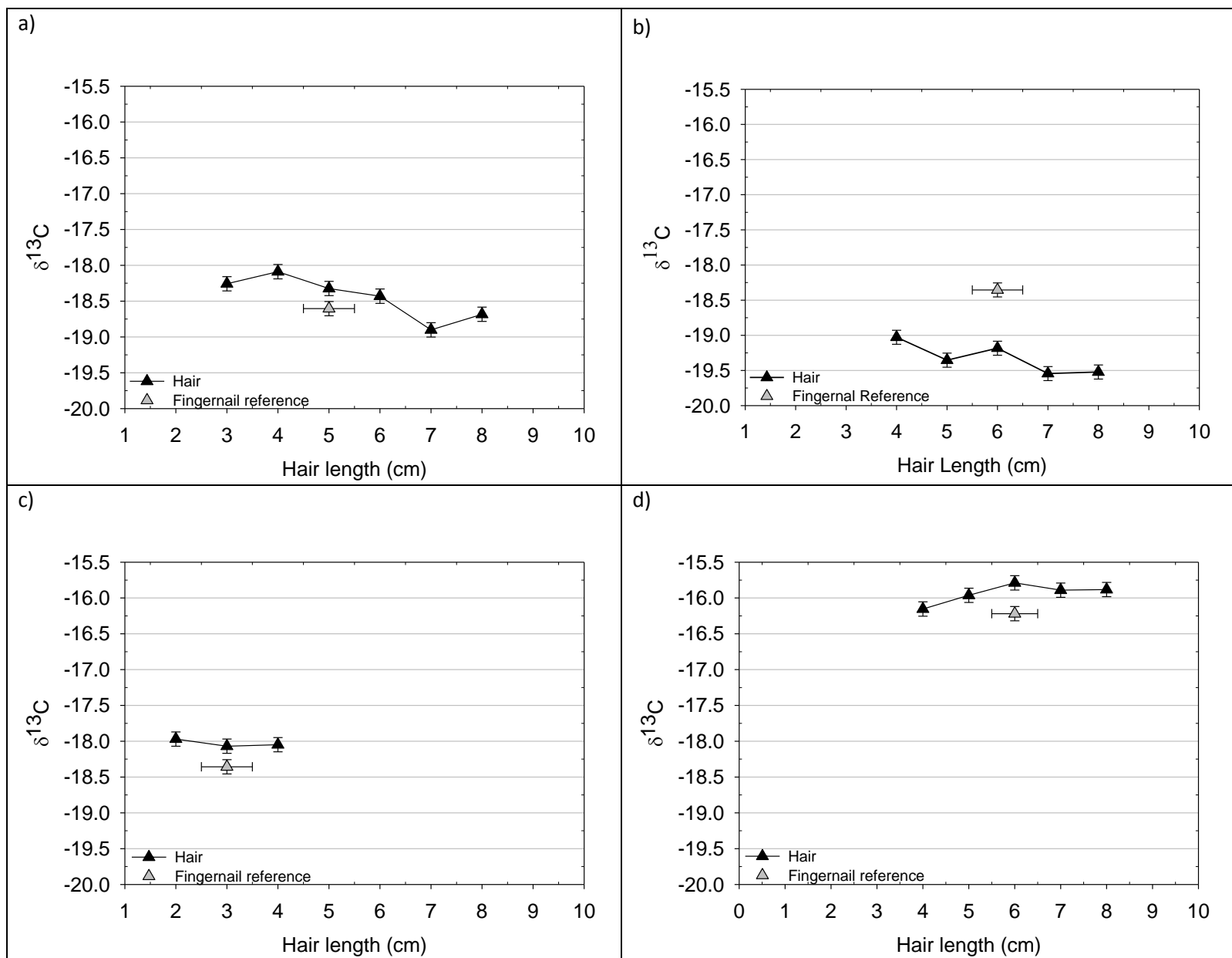


Figure S1(a-d): Results of all $\delta^{13}\text{C}$ stable isotope analysis of humans A-D. All subjects (with the exception of human B) display positive ^{13}C values relative to the nail reference. Human B (figure 2b) displays negative values relative to that of the nail reference, suggesting that some form of carbon contamination is present along the hair strand.

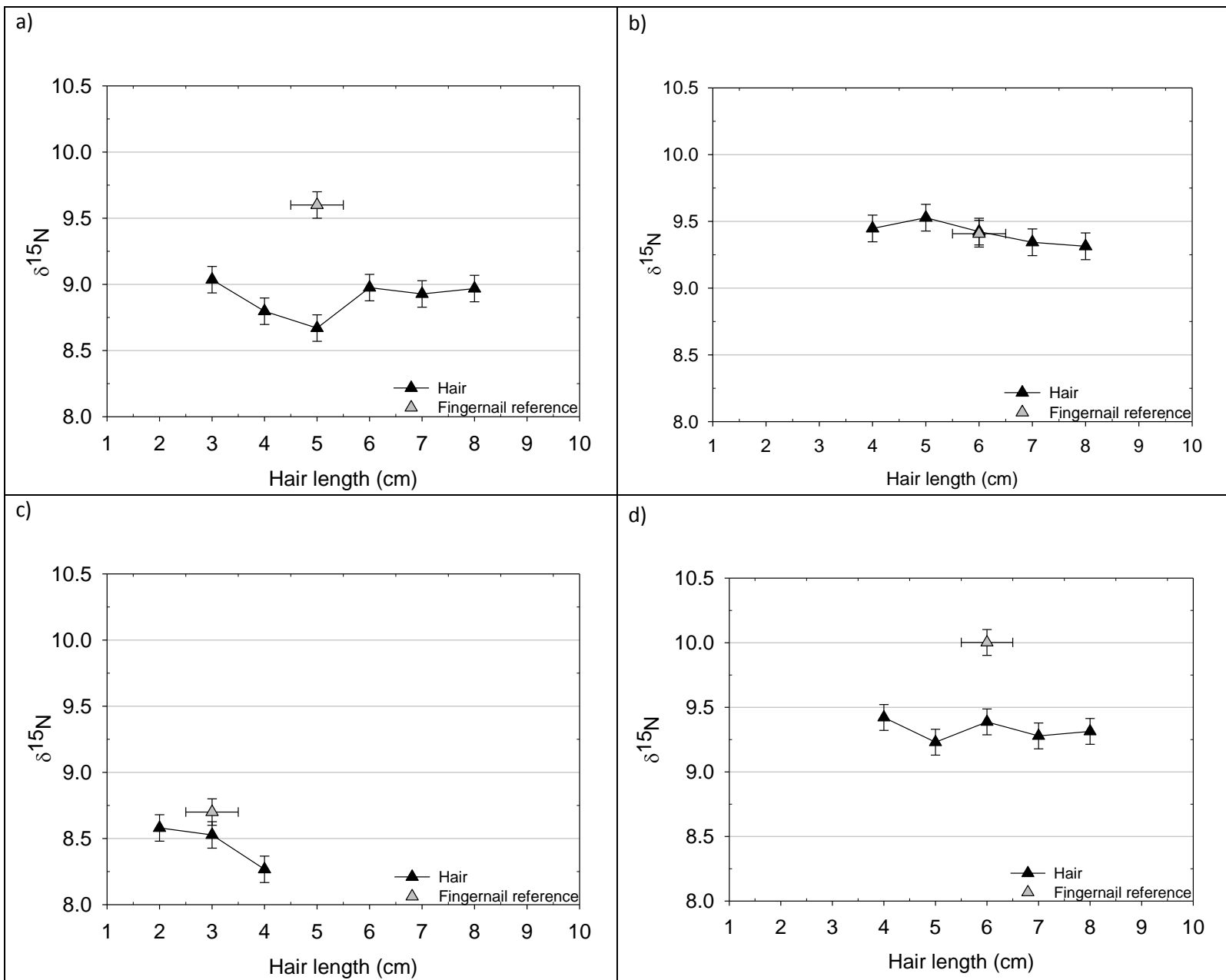


Figure S2(a-d): Results of all $\delta^{15}\text{N}$ stable isotope analysis of humans A-D.