Causal Structural Equation Modeling Links the Epigenetic Landscape to the Warburg Effect in Nasopharyngeal Carcinoma

Running Title: *Epigenetic Landscape and Warburg Effect in NPC*

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Supplementary Material

Table S1. Normalized log2-transformed expression matrix of the 11 candidate probesets across all 41 laser-capture microdissected specimens in GSE12452.

ProbeID	200650_s_at	201697_s_at	201833_at	203358_s_at	208660_at	208905_at	213720_s_at	223004_s_at	224348_s_at	238612_at	AFFX-HUMGAPDH/M33197_3_at
GSM312896	11.7577	8.4126	8.7665	7.9614	10.6229	11.2590	9.9231	9.7148	7.3341	6.5952	12.3806
GSM312897	11.6650	8.0598	9.4368	7.4810	10.1137	11.0908	8.9867	9.3052	8.9848	6.6015	12.0306
GSM312898	11.7341	9.7141	8.6254	8.1443	10.4125	10.7648	9.6095	9.9100	4.7176	7.2091	12.5754
GSM312899	11.3126	9.2373	9.7629	7.3441	10.0859	11.0457	8.7700	10.3237	8.3724	6.1392	11.7490
GSM312900	11.6156	8.4105	8.9087	7.2663	10.2455	11.0656	8.9640	9.4031	7.7550	6.8667	12.1539
GSM312901	11.2769	9.1158	8.5328	6.7221	10.2642	10.6547	9.6006	10.0153	5.6732	6.8785	12.1988
GSM312902	11.3772	8.1440	8.5527	6.3607	10.2838	11.0362	8.2744	9.2794	7.7654	6.7327	12.3797
GSM312903	12.0021	9.1955	8.7054	7.7374	10.4656	11.0350	8.9790	9.7212	5.1464	6.8837	13.0086
GSM312904	11.7319	9.5708	8.8348	8.5387	10.3346	10.8784	9.7323	9.8505	4.0915	6.6878	12.6352
GSM312905	11.8003	7.8185	9.0647	6.9459	10.1092	10.9018	8.9794	9.5184	6.1341	7.1145	11.8457
GSM312906	12.3601	8.7600	10.4344	9.2908	11.2784	12.0203	9.9643	9.8746	4.9103	7.3046	13.3088
GSM312907	11.7696	9.0239	9.0031	7.4980	10.6349	11.1067	8.9657	10.2404	6.1774	7.1054	12.8520
GSM312908	13.4517	9.6348	9.7904	8.9737	11.3944	12.1914	9.5454	10.2200	4.3124	7.3171	13.9017
GSM312909	13.0224	8.7745	9.9932	8.9533	10.5371	11.4813	9.3804	10.6984	4.6340	7.0646	13.6959
GSM312910	13.1316	9.4120	9.8026	9.7269	10.8001	12.3076	9.6894	11.5980	4.5048	7.1116	13.0571
GSM312911	12.0148	9.2153	9.0674	8.7604	10.2627	11.3358	9.4998	9.8806	4.7235	6.9730	12.4159
GSM312912	13.0538	8.7474	9.5875	8.3809	10.4645	12.0415	8.7053	10.9011	4.8319	6.7226	13.2348
GSM312913	12.2385	9.2209	9.6802	8.7711	10.9830	11.6566	9.4427	10.4279	4.9772	6.7477	12.9432
GSM312914	13.2631	9.4166	10.1355	9.8734	11.5693	12.8435	9.6401	10.2402	4.4003	7.6887	13.3986
GSM312915	12.1159	9.5689	8.8934	8.7749	10.6504	11.2639	9.4210	10.0895	5.7217	7.1906	12.7506
GSM312916	12.1405	9.6011	9.4226	8.8661	11.2637	11.5994	10.2174	10.5882	4.1479	7.6515	13.0650
GSM312917	13.1868	9.6676	9.4863	8.0417	11.2128	12.1283	10.0377	11.1339	5.0826	6.7894	13.5323
GSM312918	12.9517	9.5867	9.7003	8.7235	11.2188	12.3437	9.6044	11.2032	4.5800	7.3207	13.4583
GSM312919	12.4501	9.8123	9.9702	9.7156	11.2626	11.7416	10.3110	10.5605	4.5182	6.8804	13.2223
GSM312920	13.2002	9.5998	10.2818	8.8694	11.9832	12.2697	9.7510	10.7303	5.2928	7.0754	13.4639
GSM312921	12.3850	9.3080	10.5950	9.7622	11.6809	12.5673	10.3792	10.4455	4.6220	7.0960	13.6028
GSM312922	13.3688	9.8215	9.4998	8.7713	11.1166	11.9202	10.0687	11.0857	4.4312	7.2023	13.5263
GSM312923	11.6805	9.5807	9.3118	8.3289	10.4647	11.6010	10.5803	10.3588	4.3034	7.3494	12.7483
GSM312924	13.2855	10.0199	10.0226	9.6299	11.5029	12.5560	10.3910	10.9403	4.5883	7.2945	14.0752
GSM312925	12.8350	10.0957	9.9186	9.0876	11.0548	12.3015	10.5306	10.9556	4.6166	7.3494	13.1968
GSM312926	11.6250	8.8107	8.5495	8.1536	10.6780	10.8455	9.8938	10.1804	5.4867	6.6333	12.3428
GSM312927	12.3733	9.8310	8.7860	8.3497	10.9233	11.7683	9.6939	10.3684	4.8070	7.3581	12.9029

GSM312928	12.9421	9.7087	10.8013	9.6524	11.5850	12.6042	10.2294	10.7899	4.4064	7.6498	13.4173
GSM312929	12.3755	9.3950	10.4428	9.1106	10.6766	11.9473	10.4623	10.5402	4.4440	7.0832	13.2134
GSM312930	12.2615	9.4298	9.0774	9.0314	10.8481	11.2654	9.7321	10.3256	4.2601	7.4781	12.9106
GSM312931	12.3585	9.4214	10.2282	9.1793	10.7918	12.0470	10.1088	11.6117	4.6184	6.8073	12.9670
GSM312932	12.4380	9.2580	10.4357	9.4821	11.2480	12.4168	9.9205	10.7820	4.2061	7.3514	13.1923
GSM312933	12.9225	8.5059	9.9491	8.4591	11.3870	11.8986	9.6638	11.5478	5.4378	7.3755	13.3461
GSM312934	13.4100	10.0859	10.1257	8.7330	11.5568	12.1112	10.3156	11.2232	4.5248	7.5147	14.1063
GSM312935	11.9475	9.3588	9.3233	8.9006	10.2676	10.4089	10.6274	10.3331	4.5927	7.4841	12.2941
GSM312936	13.5301	8.7815	9.3651	8.1989	11.4343	12.5000	10.0267	11.1651	4.7167	7.6021	13.6782

Sample-level normalized log2 expression intensities retrieved from NCBI GEO Series GSE12452 (curated DataSet GDS3341; Affymetrix Human Genome U133 Plus 2.0 Array, GPL570) for all 41 human nasopharyngeal specimens (GSM312896–GSM312936), comprising 10 normal nasopharyngeal epithelial controls and 31 histologically confirmed primary NPC tumors spanning clinical TNM stages T1N0 to T3N2. Columns correspond to the representative Affymetrix probesets mapped in Table 1: 200650_s_at (LDHA), 201697_s_at (DNMT1), 201833_at (HDAC2), 203358_s_at (EZH2), 208660_at (CS), 208905_at (CYC), 213720_s_at (SMARCA4), 223004_s_at (TIMMDC1), 224348_s_at (H19), 238612_at (BRD4), and AFFX-HUMGAPDH/M33197_3_at (GAPDH).