

**Supplementary Table 9. Internal performance of gene expression genetic prediction models of fourteen tissues of central nervous systems, seven tissues of the digestive system and the whole blood tissue.**

<b>Model</b>	<b>Prediction performance (R<sup>2</sup>)</b>	<b>All</b>	<b>Protein</b>	<b>lncRNAs</b>	<b>miRNA</b>
JTI -Brain_Amygdala	≥0.01	6,542	4,803	1,739	0
	≥0.04	5,734	4,176	1,558	0
	≥0.09	3,300	2,332	968	0
	≥0.16	1,770	1,203	567	0
JTI-Brain_Anterior_cingulate_cortex_BA24	≥0.01	7,735	5,740	1,995	0
	≥0.04	6,552	4,814	1,738	0
	≥0.09	3,910	2,778	1,132	0
	≥0.16	2,191	1,509	682	0
JTI-Brain_Caudate_basal_ganglia	≥0.01	10,121	7,626	2,494	1
	≥0.04	7,777	5,807	1,970	0
	≥0.09	4,625	3,418	1,207	0
	≥0.16	2,598	1,867	731	0
JTI-Brain_Cerebellar_Hemisphere	≥0.01	10,827	8,326	2,499	2
	≥0.04	8,903	6,858	2,043	2
	≥0.09	5,744	4,393	1,350	1
	≥0.16	3,571	2,724	846	1
JTI-Brain_Cerebellum	≥0.01	11,813	9,077	2,732	4
	≥0.04	9,279	7,174	2,103	2
	≥0.09	6,005	4,646	1,358	1
	≥0.16	3,697	2,835	861	1
JTI-Brain_Cortex	≥0.01	10,508	7,942	2,566	0
	≥0.04	7,987	6,000	1,987	0
	≥0.09	4,850	3,592	1,258	0
	≥0.16	2,829	2,053	776	0
JTI-Brain_Frontal_Cortex_BA9	≥0.01	9,288	6,965	2,323	0
	≥0.04	7,358	5,476	1,882	0
	≥0.09	4,468	3,256	1,212	0
	≥0.16	2,547	1,809	738	0
JTI-Brain_Hippocampus	≥0.01	8,159	6,074	2,084	1
	≥0.04	6,497	4,804	1,692	1
	≥0.09	3,648	2,650	997	1
	≥0.16	1,943	1,361	582	0
JTI-Brain_Hypothalamus	≥0.01	8,651	6,375	2,274	2
	≥0.04	6,639	4,868	1,770	1
	≥0.09	3,659	2,601	1,057	1
	≥0.16	1,952	1,344	608	0
JTI-Brain_Nucleus_accumbens_basal_ganglia	≥0.01	10,054	7,510	2,544	0
	≥0.04	7,488	5,536	1,952	0
	≥0.09	4,332	3,138	1,194	0
	≥0.16	2,423	1,715	708	0
JTI-Brain_Putamen_basal_ganglia	≥0.01	9,089	6,956	2,133	0
	≥0.04	7,339	5,599	1,740	0
	≥0.09	4,404	3,311	1,093	0
	≥0.16	2,462	1,783	679	0
JTI-Brain_Spinal_cord_cervical_c-1	≥0.01	7,868	5,881	1,987	0
	≥0.04	6,996	5,188	1,808	0

	≥0.09	3,959	2,861	1,098	0
	≥0.16	2,196	1,561	635	0
JTI-Brain_Substantia_nigra	≥0.01	6,616	4,880	1,735	1
	≥0.04	6,163	4,535	1,628	0
	≥0.09	3,534	2,500	1,034	0
	≥0.16	1,860	1,266	594	0
JTI-Colon_Sigmoid	≥0.01	12,370	9,572	2,797	1
	≥0.04	7,816	6,008	1,807	1
	≥0.09	4,505	3,403	1,101	1
	≥0.16	2,526	1,867	659	0
JTI-Colon_Transverse	≥0.01	12,827	9,791	3,032	4
	≥0.04	7,630	5,806	1,822	2
	≥0.09	4,265	3,225	1,038	2
	≥0.16	2,303	1,712	589	2
JTI-Liver	≥0.01	8,288	6,467	1,819	2
	≥0.04	5,623	4,329	1,292	2
	≥0.09	3,000	2,271	728	1
	≥0.16	1,552	1,148	403	1
JTI-Pancreas	≥0.01	10,964	8,800	2,162	2
	≥0.04	7,155	5,761	1,393	1
	≥0.09	4,181	3,339	841	1
	≥0.16	2,421	1,936	485	0
JTI-Pituitary	≥0.01	11,226	8,220	3,002	4
	≥0.04	7,685	5,538	2,146	1
	≥0.09	4,382	3,100	1,281	1
	≥0.16	2,496	1,758	737	1
JTI-Pituitary	≥0.01	11,603	8,819	2,782	2
	≥0.04	8,565	6,514	2,050	1
	≥0.09	5,116	3,865	1,250	1
	≥0.16	2,979	2,232	746	1
JTI-Stomach	≥0.01	11,366	8,831	2,534	1
	≥0.04	6,622	5,111	1,510	1
	≥0.09	3,538	2,718	819	1
	≥0.16	1,899	1,436	463	0
JTI-Whole_Blood	≥0.01	10,350	8,595	1,753	2
	≥0.04	6,177	5,155	1,022	0
	≥0.09	3,666	3,043	623	0
	≥0.16	2,110	1,765	345	0
JTI-Nerve_Tibial	≥0.01	15,096	11,582	3,512	2
	≥0.04	9,981	7,803	2,177	1
	≥0.09	6,300	4,948	1,351	1
	≥0.16	3,812	2,962	849	1
JTI-Small_Intestine_Terminal_Ileum	≥0.01	9,420	7,048	1	2371
	≥0.04	7,119	5,277	1,841	1
	≥0.09	3,853	2,814	1,038	1
	≥0.16	1976	1407	568	1

Protein, Protein coding genes; lncRNAs, long non-coding RNAs; miRNAs, microRNAs.