

# **Acute heart failure as a distinctive disorder – an analysis from BIOSTAT-CHF**

Supplementary Materials

**Supplementary Table 1. Classification of Inpatient vs. Outpatient by Various Methods**

Proportion of larger class: 1694/2516=0.6733 (Index Cohort), 935/1738=0.5380 (Validation Cohort), 1434/2022=0.7092 (Index Cohort, complete Olink data), 904/1698=0.5324 (Validation Cohort, complete Olink data)

		Local and central data	Local, central, and Singulex data	Local, central, Singulex, and Olink data	Olink data (complete cases only)
Our approach Index Cohort MI data	Accuracy	0.7805	0.7856	0.8564	
	AUC	0.8194	0.8324	0.9133	
	Brier score	0.1562	0.1501	0.1057	
	Brier score (scaled)	0.2899	0.3176	0.5193	
Our approach Validation Cohort MI data	Accuracy	0.7503	0.7810	0.7761	
	AUC	0.8731	0.8716	0.9011	
	Brier score	0.1634	0.1566	0.1530	
	Brier score (scaled)	0.3427	0.3701	0.3846	
LogitBoost (Boosted Logistic Regression) Training data	Accuracy	0.7561	0.7742	0.7778	0.8035
	AUC	0.6984	0.6954	0.7666	0.7865
	Brier score	0.2190	0.2112	0.2043	0.1863
	Brier score (scaled)	0.0045	0.0401	0.0715	0.0968
LogitBoost (Boosted Logistic Regression) Index Cohort MI data	Accuracy	0.7704	0.7994	0.8057	0.8323
	AUC	0.6713	0.6801	0.7820	0.8183
	Brier score	0.2107	0.2065	0.1850	0.1662
	Brier score (scaled)	0.0422	0.0614	0.1591	0.2445
LogitBoost (Boosted Logistic Regression) Validation Cohort MI data	Accuracy	0.7691	0.7806	0.7893	0.7285
	AUC	0.7175	0.6768	0.8049	0.7735
	Brier score	0.2162	0.2234	0.1979	0.2383
	Brier score (scaled)	0.1300	0.1012	0.2037	0.0411
LogitBoost (Boosted Logistic Regression) Validation Cohort complete Olink data	Accuracy				0.7290
	AUC				0.7764
	Brier score				0.2380
	Brier score (scaled)				0.0438
nnet (Neural Networks) Training data	Accuracy	0.7717	0.7797	0.7854	0.8136
	AUC	0.8026	0.8144	0.8523	0.8701
	Brier score	0.1617	0.1573	0.1695	0.1547

	Brier score (scaled)	0.2649	0.2850	0.2296	0.2498
nnet (Neural Networks) Index Cohort MI data	Accuracy	0.7806	0.7842	0.8624	0.8859
	AUC	0.8081	0.8175	0.8671	0.8715
	Brier score	0.1584	0.1544	0.1169	0.1048
	Brier score (scaled)	0.2801	0.2979	0.4684	0.5236
nnet (Neural Networks) Validation Cohort MI data	Accuracy	0.7318	0.7437	0.7574	0.7299
	AUC	0.8175	0.8366	0.8409	0.8626
	Brier score	0.1799	0.1713	0.2004	0.2391
	Brier score (scaled)	0.2764	0.3106	0.1936	0.0379
nnet (Neural Networks) Validation Cohort complete Olink data	Accuracy				0.7309
	AUC				0.8676
	Brier score				0.2384
	Brier score (scaled)				0.0424
knn (k-Nearest Neighbors) Training data	Accuracy	0.7199	0.7281	0.6401	0.7677
	AUC	0.7890	0.8006	0.7383	0.7926
	Brier score	0.1905	0.1859	0.2194	0.1701
	Brier score (scaled)	0.1339	0.1551	0.0028	0.1752
knn (k-Nearest Neighbors) Index Cohort MI data	Accuracy	0.7314	0.7409	0.6579	0.7581
	AUC	0.7941	0.8082	0.7547	0.7994
	Brier score	0.1855	0.1795	0.2096	0.1750
	Brier score (scaled)	0.1565	0.1839	0.0473	0.2043
knn (k-Nearest Neighbors) Validation Cohort MI data	Accuracy	0.7587	0.7748	0.7084	0.6824
	AUC	0.8378	0.8520	0.7772	0.8231
	Brier score	0.1761	0.1656	0.1948	0.1968
	Brier score (scaled)	0.2917	0.3337	0.2162	0.2080
knn (k-Nearest Neighbors) Validation Cohort complete Olink data	Accuracy				0.6843
	AUC				0.8276
	Brier score				0.1967
	Brier score (scaled)				0.2097
rpart (CART) Training data	Accuracy	0.7067	0.7407	0.7460	0.7622
	AUC	0.6442	0.7082	0.7252	0.7276
	Brier score	0.2021	0.1863	0.1841	0.1721
	Brier score (scaled)	0.0810	0.1530	0.1629	0.1652

rpart (CART) Index Cohort MI data	Accuracy	0.7421	0.7419	0.7643	0.7452
	AUC	0.6736	0.6997	0.7299	0.7202
	Brier score	0.1891	0.1881	0.1778	0.1827
	Brier score (scaled)	0.1401	0.1449	0.1917	0.1693
rpart (CART) Validation Cohort MI data	Accuracy	0.6329	0.7053	0.6743	0.6656
	AUC	0.6435	0.7542	0.7557	0.7471
	Brier score	0.2459	0.2079	0.2199	0.2226
	Brier score (scaled)	0.0107	0.1634	0.1152	0.1044
rpart (CART) Validation Cohort complete Olink data	Accuracy				0.6649
	AUC				0.7520
	Brier score				0.2225
	Brier score (scaled)				0.1064
C5.0 Training data	Accuracy	0.7730	0.7783	0.8099	0.8122
	AUC	0.8164	0.8254	0.8701	0.8576
	Brier score	0.1591	0.1556	0.1382	0.1373
	Brier score (scaled)	0.2767	0.2929	0.3718	0.3344
C5.0 Index Cohort MI data	Accuracy	0.8960	0.8421	0.9210	0.9202
	AUC	0.9603	0.9209	0.9698	0.9552
	Brier score	0.1018	0.1218	0.0716	0.0744
	Brier score (scaled)	0.5373	0.4462	0.6746	0.6618
C5.0 Validation Cohort MI data	Accuracy	0.7120	0.7158	0.7452	0.7318
	AUC	0.8367	0.8539	0.8889	0.8791
	Brier score	0.1856	0.1801	0.1681	0.1703
	Brier score (scaled)	0.2535	0.2754	0.3236	0.3148
C5.0 Validation Cohort complete Olink data	Accuracy				0.7314
	AUC				0.8832
	Brier score				0.1702
	Brier score (scaled)				0.3164
rf (Random Forest) Training data	Accuracy	0.7656	0.7761	0.7843	0.7973
	AUC	0.7983	0.8050	0.8420	0.8455
	Brier score	0.1662	0.1617	0.1561	0.1484
	Brier score (scaled)	0.2444	0.2649	0.2904	0.2805
rf (Random Forest)	Accuracy	0.9223	0.9293	0.9173	0.9120

Index Cohort MI data	AUC	0.9915	0.9928	0.9870	0.9783
	Brier score	0.0790	0.0721	0.0662	0.0689
	Brier score (scaled)	0.6409	0.6722	0.6989	0.6866
rf (Random Forest) Validation Cohort MI data	Accuracy	0.7173	0.7277	0.6497	0.6247
	AUC	0.8563	0.8714	0.8924	0.8739
	Brier score	0.1852	0.1784	0.1918	0.2060
	Brier score (scaled)	0.2550	0.2822	0.2284	0.1712
rf (Random Forest) Validation Cohort complete Olink data	Accuracy				0.6213
	AUC				0.8770
	Brier score				0.2071
	Brier score (scaled)				0.1683

**Supplementary Table 2. Classification of All-cause mortality in Inpatients through Day 180 by Various Methods**

Proportion of larger class: 1486/1694=0.8772 (overall), 1263/1434=0.8808 (complete Olink data)

		Local and central data	Local, central, and Singulex data	Local, central, Singulex, and Olink data	Olink data (complete cases only)
Our approach					
Index Cohort MI data	AUC (C-index)	0.7973	0.7993	0.8281	
LogitBoost (Boosted Logistic Regression)	Accuracy	0.8826	0.8828	0.8691	0.8668
	AUC	0.6623	0.6666	0.6550	0.6776
	Brier score	0.1214	0.1211	0.1332	0.1333
	Brier score (scaled)	-0.1272	-0.1247	-0.2366	-0.2699
Training data					
	Accuracy	0.9114	0.9159	0.9218	0.9260
	AUC	0.7673	0.7791	0.8165	0.8222
	Brier score	0.0961	0.0990	0.0903	0.0832
LogitBoost (Boosted Logistic Regression)	Brier score (scaled)	0.1082	0.0810	0.1617	0.2273
	Accuracy	0.8772	0.8772	0.8626	0.8375
	AUC	0.7504	0.7422	0.6765	0.6663
nnet (Neural Networks)	Brier score	0.1019	0.1032	0.1096	0.1115
	Brier score (scaled)	0.0542	0.0424	-0.0172	-0.0619
	Accuracy	0.8772	0.8772	0.8864	0.8772
nnet (Neural Networks)	AUC	0.7985	0.7900	0.8307	0.7984
	Brier score	0.0919	0.0899	0.0740	0.0833
	Brier score (scaled)	0.1467	0.1652	0.3130	0.2270
knn (k-Nearest Neighbors)	Accuracy	0.8772	0.8778	0.8777	0.8812
	AUC	0.7397	0.7292	0.7081	0.7083
	Brier score	0.0987	0.0986	0.1004	0.0964
	Brier score (scaled)	0.0841	0.0846	0.0674	0.0824
knn (k-Nearest Neighbors)					
	Accuracy	0.8772	0.8779	0.8777	0.8778
	AUC	0.8068	0.8266	0.7928	0.7852
	Brier score	0.0938	0.0904	0.0942	0.0944
Index Cohort MI data	Brier score (scaled)	0.1289	0.1609	0.1254	0.1240

rpart (CART) Training data	Accuracy	0.8592	0.861	0.8703	0.8770
	AUC	0.5939	0.6156	0.5452	0.5578
	Brier score	0.1165	0.1155	0.1099	0.1055
	Brier score (scaled)	-0.0814	-0.0722	-0.0204	-0.0046
rpart (CART) Index Cohort MI data	Accuracy	0.8772	0.8927	0.8772	0.8772
	AUC	0.5	0.7151	0.5	0.5
	Brier score	0.1077	0.0915	0.1077	0.1077
	Brier score (scaled)	0	0.1509	0	-0.0001
C5.0 Training data	Accuracy	0.8754	0.8782	0.8802	0.8859
	AUC	0.7241	0.7175	0.7452	0.7551
	Brier score	0.1020	0.1022	0.0975	0.0936
	Brier score (scaled)	0.0529	0.0511	0.0951	0.1087
C5.0 Index Cohort MI data	Accuracy	0.9254	0.9478	0.9811	0.9782
	AUC	0.9732	0.9860	0.9895	0.9620
	Brier score	0.0576	0.0476	0.0264	0.0271
	Brier score (scaled)	0.4655	0.5581	0.7551	0.7479
rf (Random Forest) Training data	Accuracy	0.8784	0.8796	0.8805	0.8847
	AUC	0.7662	0.7668	0.7368	0.7500
	Brier score	0.0954	0.0946	0.0969	0.0932
	Brier score (scaled)	0.1144	0.1218	0.1006	0.1127
rf (Random Forest) Index Cohort MI data	Accuracy	0.9712	0.9782	0.9789	0.9782
	AUC	0.9994	0.9995	0.9947	0.9677
	Brier score	0.0314	0.0290	0.0263	0.0290
	Brier score (scaled)	0.7081	0.7308	0.7558	0.7308

**Supplementary Table 3. Classification of All-cause mortality in Outpatients through Day 180 by Various Methods**

Proportion of larger class: 783/822=0.9526 (overall), 562/588=0.9556 (complete Olink data)

		Local and central data	Local, central, and Singulex data	Local, central, Singulex, and Olink data	Olink data (complete cases only)
Our approach	AUC (C-index)	0.8277	0.8156	0.8460	
Index Cohort MI data					
LogitBoost (Boosted Logistic Regression)	Accuracy	0.9475	0.9497	0.9459	0.9526
	AUC	0.6516	0.6281	0.5518	0.5083
	Brier score	0.0580	0.0568	0.0604	0.0562
	Brier score (scaled)	-0.2835	-0.2584	-0.3396	-0.3365
LogitBoost (Boosted Logistic Regression)	Accuracy	0.9563	0.9621	0.9702	0.9722
	AUC	0.8157	0.8144	0.8104	0.7959
	Brier score	0.0551	0.0430	0.0462	0.0355
	Brier score (scaled)	-0.2198	0.0484	-0.0215	0.2156
nnet (Neural Networks)	Accuracy	0.9479	0.9407	0.9151	0.9384
	AUC	0.6565	0.6767	0.5356	0.5718
	Brier score	0.0529	0.0560	0.0632	0.0534
	Brier score (scaled)	-0.1719	-0.2413	-0.3955	-0.2679
nnet (Neural Networks)	Accuracy	0.9526	0.9526	0.9526	0.9455
	AUC	0.8014	0.8234	0.8059	0.8279
	Brier score	0.0445	0.0433	0.0409	0.0356
	Brier score (scaled)	0.0144	0.0422	0.0940	0.2128
knn (k-Nearest Neighbors)	Accuracy	0.9526	0.9526	0.9526	0.9558
	AUC	0.5308	0.5483	0.5529	0.6263
	Brier score	0.0463	0.0461	0.0461	0.0424
	Brier score (scaled)	-0.0243	-0.0192	-0.0201	-0.0026
knn (k-Nearest Neighbors)	Accuracy	0.9526	0.9526	0.9526	0.9526
	AUC	0.8041	0.8184	0.7548	0.7270
	Brier score	0.0428	0.0423	0.0431	0.0436
	Brier score (scaled)	0.0538	0.0646	0.0458	0.0353

rpart (CART) Training data	Accuracy	0.9397	0.9457	0.9353	0.9436
	AUC	0.5103	0.5135	0.5007	0.5227
	Brier score	0.0508	0.0494	0.0536	0.0461
	Brier score (scaled)	-0.1244	-0.0928	-0.1879	-0.0889
rpart (CART) Index Cohort MI data	Accuracy	0.9363	0.9564	0.9526	0.9526
	AUC	0.7397	0.7688	0.5	0.5
	Brier score	0.0491	0.0372	0.0452	0.0452
	Brier score (scaled)	-0.0867	0.1778	0	-0.0002
C5.0 Training data	Accuracy	0.9472	0.9482	0.9511	0.9517
	AUC	0.6577	0.6233	0.5438	0.5833
	Brier score	0.0518	0.0521	0.0523	0.0497
	Brier score (scaled)	-0.1481	-0.1536	-0.1578	-0.1790
C5.0 Index Cohort MI data	Accuracy	0.9730	0.9764	0.9844	0.9842
	AUC	0.9630	0.9658	0.9594	0.8914
	Brier score	0.0259	0.0252	0.0223	0.0227
	Brier score (scaled)	0.4274	0.4415	0.5063	0.4981
rf (Random Forest) Training data	Accuracy	0.9526	0.9526	0.9526	0.9558
	AUC	0.6920	0.6908	0.5670	0.6251
	Brier score	0.0444	0.0443	0.0466	0.0435
	Brier score (scaled)	0.0175	0.0197	-0.0318	-0.0297
rf (Random Forest) Index Cohort MI data	Accuracy	0.9771	0.9779	0.9842	0.9842
	AUC	0.9996	0.9995	0.9850	0.9249
	Brier score	0.0168	0.0165	0.0183	0.0194
	Brier score (scaled)	0.6289	0.6346	0.5956	0.5710

**Supplementary Table 4. Classification of HF re-admission in Inpatients through Day 180 by Various Methods**

Proportion of larger class: 1440/1694=0.8501 (overall), 1225/1434=0.8543 (complete Olink data)

		Local and central data	Local, central, and Singulex data	Local, central, Singulex, and Olink data	Olink data (complete cases only)
Our approach					
Index Cohort MI data	AUC (C-index)	0.7395	0.7395	0.7322	
LogitBoost (Boosted Logistic Regression)	Accuracy	0.8571	0.8522	0.8323	0.8396
	AUC	0.5757	0.5577	0.5574	0.5823
	Brier score	0.1447	0.1487	0.1640	0.1598
	Brier score (scaled)	-0.1353	-0.1667	-0.2867	-0.2839
Training data	Accuracy	0.8821	0.8763	0.8713	0.8811
	AUC	0.6519	0.6317	0.5857	0.6746
	Brier score	0.1265	0.1284	0.1232	0.1296
	Brier score (scaled)	0.0079	-0.0074	0.0337	-0.0169
nnet (Neural Networks)	Accuracy	0.8501	0.8501	0.7975	0.8368
	AUC	0.6689	0.6567	0.5856	0.5917
	Brier score	0.1266	0.1281	0.1471	0.1355
	Brier score (scaled)	0.0069	-0.0050	-0.1543	-0.0885
Training data	Accuracy	0.8501	0.8501	0.8523	0.8501
	AUC	0.7297	0.7219	0.7904	0.7535
	Brier score	0.1151	0.1154	0.0981	0.1037
	Brier score (scaled)	0.0971	0.0944	0.2302	0.1868
knn (k-Nearest Neighbors)	Accuracy	0.8503	0.8499	0.8501	0.8543
	AUC	0.6192	0.6431	0.5492	0.5276
	Brier score	0.1256	0.1240	0.1286	0.1282
	Brier score (scaled)	0.0144	0.0275	-0.0089	-0.0301
Training data	Accuracy	0.8516	0.8501	0.8501	0.8501
	AUC	0.7311	0.7263	0.6694	0.6264
	Brier score	0.1156	0.1171	0.1227	0.1237
	Brier score (scaled)	0.0929	0.0812	0.0372	0.0296

rpart (CART) Training data	Accuracy	0.8215	0.8146	0.8178	0.8342
	AUC	0.5609	0.573	0.5568	0.6007
	Brier score	0.1438	0.1478	0.1491	0.1352
	Brier score (scaled)	-0.1284	-0.1595	-0.1696	-0.0864
rpart (CART) Index Cohort MI data	Accuracy	0.8501	0.8741	0.8715	0.8501
	AUC	0.5	0.6802	0.6473	0.5
	Brier score	0.1275	0.1065	0.1098	0.1275
	Brier score (scaled)	0	0.1644	0.1383	-0.0001
C5.0 Training data	Accuracy	0.8447	0.8455	0.8472	0.8510
	AUC	0.6413	0.6409	0.5996	0.6071
	Brier score	0.1275	0.1275	0.1300	0.1271
	Brier score (scaled)	-0.0002	-0.0002	-0.0200	-0.0207
C5.0 Index Cohort MI data	Accuracy	0.8501	0.9434	0.9743	0.9730
	AUC	0.5	0.9937	0.9894	0.9540
	Brier score	0.1275	0.0593	0.0344	0.0494
	Brier score (scaled)	0	0.5346	0.7300	0.6120
rf (Random Forest) Training data	Accuracy	0.8498	0.8501	0.8494	0.8531
	AUC	0.6528	0.6546	0.5730	0.5981
	Brier score	0.1236	0.1230	0.1283	0.1244
	Brier score (scaled)	0.0305	0.0348	-0.0068	0.0009
rf (Random Forest) Index Cohort MI data	Accuracy	0.9586	0.9584	0.9740	0.9734
	AUC	0.9993	0.9996	0.9919	0.9740
	Brier score	0.0430	0.0419	0.0363	0.0372
	Brier score (scaled)	0.6624	0.6715	0.7151	0.7083

**Supplementary Table 5. Classification of HF re-admission in Outpatients through Day 180 by Various Methods**

Proportion of larger class: 749/822=0.9112 (overall), 527/588=0.8963 (complete Olink data)

		Local and central data	Local, central, and Singulex data	Local, central, Singulex, and Olink data	Olink data (complete cases only)
Our approach	AUC (C-index)	0.7966	0.7984	0.8234	
Index Cohort MI data					
LogitBoost (Boosted Logistic Regression)	Accuracy	0.9092	0.9069	0.9011	0.8841
	AUC	0.6253	0.6448	0.6328	0.6279
	Brier score	0.0976	0.0987	0.1035	0.1189
	Brier score (scaled)	-0.2065	-0.2206	-0.2802	-0.2794
Training data	Accuracy	0.9327	0.9283	0.9404	0.9464
	AUC	0.7741	0.7838	0.8421	0.8177
	Brier score	0.0695	0.0871	0.0757	0.0727
	Brier score (scaled)	0.1410	-0.0765	0.0650	0.1012
LogitBoost (Boosted Logistic Regression)	Accuracy	0.9112	0.9112	0.8927	0.8340
	AUC	0.6967	0.6629	0.6409	0.6175
	Brier score	0.0852	0.0892	0.096	0.1167
	Brier score (scaled)	-0.0528	-0.1023	-0.1860	-0.2554
Training data	Accuracy	0.9112	0.9112	0.8949	0.8577
	AUC	0.7963	0.7832	0.8539	0.8633
	Brier score	0.0740	0.0772	0.0618	0.0666
	Brier score (scaled)	0.0858	0.0462	0.2366	0.1772
nnet (Neural Networks)	Accuracy	0.9112	0.9112	0.9112	0.8969
	AUC	0.6617	0.6672	0.6770	0.6680
	Brier score	0.0789	0.0786	0.0798	0.0908
	Brier score (scaled)	0.0249	0.0279	0.0143	0.0229
Training data	Accuracy	0.9112	0.9112	0.9112	0.9112
	AUC	0.7850	0.7816	0.7993	0.7986
	Brier score	0.0743	0.0736	0.0735	0.0720
	Brier score (scaled)	0.0816	0.0910	0.0920	0.1098
knn (k-Nearest Neighbors)	Accuracy	0.9112	0.9112	0.9112	0.9112
	AUC	0.7850	0.7816	0.7993	0.7986
	Brier score	0.0743	0.0736	0.0735	0.0720
	Brier score (scaled)	0.0816	0.0910	0.0920	0.1098
Training data	Accuracy	0.9112	0.9112	0.9112	0.9112
	AUC	0.7850	0.7816	0.7993	0.7986
	Brier score	0.0743	0.0736	0.0735	0.0720
	Brier score (scaled)	0.0816	0.0910	0.0920	0.1098
Index Cohort MI data	Accuracy	0.9112	0.9112	0.9112	0.9112
	AUC	0.7850	0.7816	0.7993	0.7986
	Brier score	0.0743	0.0736	0.0735	0.0720
	Brier score (scaled)	0.0816	0.0910	0.0920	0.1098

rpart (CART) Training data	Accuracy	0.8895	0.8803	0.8993	0.8820
	AUC	0.6306	0.6142	0.5855	0.5658
	Brier score	0.0903	0.0944	0.0864	0.1007
	Brier score (scaled)	-0.1161	-0.166	-0.0673	-0.0836
rpart (CART) Index Cohort MI data	Accuracy	0.9234	0.9251	0.9112	0.9112
	AUC	0.7411	0.7523	0.5	0.5
	Brier score	0.0675	0.0654	0.0809	0.0811
	Brier score (scaled)	0.1663	0.1914	0	-0.0028
C5.0 Training data	Accuracy	0.9097	0.9085	0.9093	0.8935
	AUC	0.6789	0.7028	0.7289	0.7198
	Brier score	0.0823	0.0811	0.0792	0.0905
	Brier score (scaled)	-0.0181	-0.0024	0.0198	0.0266
C5.0 Index Cohort MI data	Accuracy	0.9742	0.9747	0.9844	0.9852
	AUC	0.9933	0.9951	0.9840	0.9648
	Brier score	0.0296	0.0258	0.0249	0.0245
	Brier score (scaled)	0.6338	0.6808	0.6923	0.6969
rf (Random Forest) Training data	Accuracy	0.9112	0.9112	0.9107	0.8956
	AUC	0.7414	0.7575	0.7130	0.6959
	Brier score	0.0771	0.0761	0.0789	0.0917
	Brier score (scaled)	0.0470	0.0595	0.0243	0.0132
rf (Random Forest) Index Cohort MI data	Accuracy	0.9623	0.9645	0.9854	0.9854
	AUC	0.9975	0.9978	0.9894	0.9798
	Brier score	0.0313	0.0297	0.0239	0.0232
	Brier score (scaled)	0.6126	0.6331	0.7047	0.7136

**Supplementary Table 6. Classification of Inpatient vs. Outpatient status: Comparison of variable importance derived by applying various classification methods on the training data. Within each column, variable importance results were scaled to a range of 0 (least important) to 100 (most important).**

Variable	Local, central, Singulex, and Olink data				Olink data only			
	ROC	C5.0	Random Forests	Neural Networks	ROC	C5.0	Random Forests	Neural Networks
Age, years	7.21	44.00	9.04	9.65				
Albumin, g/L	63.36	80.01	26.29	52.38				
Body mass index, kg/m <sup>2</sup>	0.14	64.63	9.00	0.79				
Diastolic blood pressure	53.50	96.70	16.21	5.91				
eGFR, mL/min/1.73m <sup>2</sup>	64.09	30.68	7.23	6.48				
HDL, mmol/L	14.82	41.10	10.95	23.55				
Hemoglobin, g/dL	91.70	56.84	10.91	0.80				
Heart rate, bpm	65.94	100.00	24.63	47.45				
LDL, mmol/L	11.07	44.87	9.36	6.36				
Aldosterone, pg/mL, log <sub>2</sub>	28.51	99.17	11.93	22.42				
Alkaline phosphatase, µg/L, log <sub>2</sub>	46.33	67.37	12.19	0.00				
ALT, U/L, log <sub>2</sub>	45.43	100.00	16.04	16.35				
AST, U/L, log <sub>2</sub>	30.44	73.21	14.39	13.56				
ET-1, pg/mL, log <sub>2</sub>	60.23	25.00	16.36	5.39				
Ferritin, µg/L, log <sub>2</sub>	1.24	39.43	11.90	6.85				
GGT, U/L, log <sub>2</sub>	16.30	86.80	11.42	23.78				
Glucose, mmol/L, log <sub>2</sub>	32.46	97.93	16.79	0.88				
Hepcidin, nmol/L, log <sub>2</sub>	2.71	38.12	12.57	23.82				
Serum iron, µmol/L, log <sub>2</sub>	80.39	92.69	47.47	8.75				
Phosphate, mmol/L, log <sub>2</sub>	9.24	49.32	9.64	6.84				
Platelet count, 10 <sup>9</sup> /L, log <sub>2</sub>	87.11	90.38	11.16	50.53				
pro-ENK, pmol/L, log <sub>2</sub>	17.71	10.93	8.76	34.59				
Total bilirubin, µmol/L, log <sub>2</sub>	12.18	69.00	18.50	23.95				
Triglycerides, mmol/L, log <sub>2</sub>	18.66	72.85	13.26	4.49				
Troponin I, pg/mL, log <sub>2</sub>	88.92	100.00	55.58	27.47				
Troponin T, pg/mL, log <sub>2</sub>	83.97	98.09	46.27	0.62				
Urea, mmol/L, log <sub>2</sub>	28.90	100.00	16.20	4.34				
White blood cell count, 10 <sup>9</sup> /L, log <sub>2</sub>	63.79	83.78	22.50	8.04				
LVEF, %	13.66	96.07	8.37	22.90				
Male sex	12.17	26.79	0.00	2.59				

Potassium, mmol/L	88.24	95.23	20.00	10.57				
Red blood cell count, 10 <sup>12</sup> /L	52.21	33.78	9.53	2.78				
Systolic blood pressure, mmHg	38.37	67.17	11.73	3.01				
Sodium, mmol/L	80.77	86.53	11.72	40.95				
Transferrin, g/L	13.38	52.27	7.36	25.17				
ACE2 (Q9BYF1)	0.12	60.61	9.71	5.38	49.71	67.06	9.81	29.88
ADAM-TS13 (Q76LX8)	69.17	71.18	14.57	2.76	46.73	46.04	7.57	7.85
ADM (P35318)	11.75	49.68	28.19	22.44	65.69	82.44	10.95	38.46
AGRP (O00253)	14.52	67.17	27.26	33.00	69.97	81.36	18.31	49.13
AMBP (P02760)	57.21	54.81	12.18	43.06	30.20	49.01	10.44	76.80
ANG-1 (Q15389)	59.46	12.04	10.28	28.49	33.52	62.86	7.87	34.52
BMP-6 (P22004)	18.73	57.27	7.21	57.18	21.24	59.40	2.11	21.16
BNP (P16860)	9.42	49.56	19.01	15.33	62.85	100.00	12.00	25.74
BOC (Q9BWV1)	63.16	96.03	38.84	73.95	38.54	99.46	40.63	85.46
CA5A (P35218)	9.76	49.48	8.05	17.77	34.83	56.97	2.50	0.49
CCL17 (Q92583)	60.07	45.75	14.66	12.43	34.29	35.46	6.28	51.90
CCL3 (P10147)	4.05	50.44	9.08	10.49	41.81	100.00	6.73	41.24
CD40-L (P29965)	55.76	34.74	7.53	9.25	28.79	42.93	2.31	23.81
CD4 (P01730)	6.63	90.66	7.20	25.08	38.35	19.04	2.56	6.32
CD84 (Q9UIB8)	24.61	15.18	7.15	33.06	13.44	23.24	4.74	38.06
CEACAM8 (P31997)	8.14	20.07	6.88	1.57	36.53	20.08	4.50	15.01
CTRC (Q99895)	47.12	39.39	8.63	3.61	16.67	75.12	3.45	40.97
CTSL1 (P07711)	14.96	97.81	23.38	20.65	70.69	100.00	19.64	47.61
CXCL1 (P09341)	52.07	68.80	9.28	15.65	23.53	37.29	4.90	31.28
DCN (P07585)	2.10	27.03	10.00	2.46	44.71	40.85	4.99	33.71
DECR1 (Q16698)	45.94	49.60	6.23	19.74	15.72	12.96	2.66	5.70
Dkk-1 (O94907)	31.81	13.55	6.53	23.55	4.55	55.74	2.09	5.63
FABP2 (P12104)	74.46	94.40	30.23	2.46	54.26	99.31	29.78	24.16
FGF-21 (Q9NSA1)	19.81	55.48	11.20	32.71	20.71	83.73	6.99	51.74
FGF-23 (Q9GZV9)	14.45	25.72	20.67	24.98	69.49	53.66	21.48	12.26
FS (P19883)	24.04	36.61	7.71	26.56	14.14	21.17	4.53	23.60
Gal-9 (O00182)	0.74	32.43	10.27	26.10	46.33	38.82	7.28	15.42
GDF-2 (Q9UK05)	61.97	22.14	11.86	4.10	36.22	33.09	7.57	31.06
GH (P01241)	29.75	48.17	10.59	22.06	6.48	88.23	7.77	77.71
GIF (P27352)	58.47	53.38	10.28	17.78	31.70	45.65	6.23	29.18

GLO1 (Q04760)	31.36	53.74	7.17	18.62	4.58	47.87	4.16	18.96
GT (P51161)	38.53	66.41	9.76	1.83	5.49	68.89	6.28	2.36
HAOX1 (Q9UJM8)	18.68	24.28	7.37	16.58	22.50	54.06	2.90	10.75
HB-EGF (Q99075)	53.56	0.00	9.27	20.72	25.31	21.51	5.63	4.66
HO-1 (P09601)	0.24	25.04	11.70	2.00	46.98	63.25	6.23	12.69
hOSCAR (Q8IYS5)	22.11	7.55	6.85	0.24	17.67	21.32	3.12	0.41
HSP 27 (P04792)	32.29	8.82	7.13	5.53	3.63	46.29	3.39	51.88
IDUA (P35475)	59.17	58.59	10.33	25.24	33.00	60.04	8.66	32.94
IgG Fc receptor II-b (P31994)	28.89	76.59	9.08	9.15	7.47	73.59	4.47	22.42
IL-17D (Q8TAD2)	46.02	38.39	10.14	24.04	14.81	50.00	9.84	15.42
IL-18 (Q14116)	42.41	84.50	9.75	34.83	9.43	46.88	5.06	37.74
IL-1ra (P18510)	6.29	52.94	15.53	8.73	58.23	56.38	14.63	47.19
IL-27 (Q8NEV9)	9.23	30.01	21.75	20.87	62.90	19.44	16.73	6.40
IL-4RA (P24394)	0.00	24.80	8.75	26.68	47.45	60.44	5.75	13.50
IL16 (Q14005)	50.07	47.93	11.96	1.59	20.93	64.54	12.24	2.18
IL1RL2 (Q9HB29)	47.07	16.93	8.39	21.15	16.57	33.28	4.70	0.39
ITGB1BP2 (Q9UKP3)	41.25	52.34	5.41	55.82	9.64	0.00	0.90	3.00
KIM1 (Q96D42)	17.99	33.15	9.56	6.56	23.32	17.06	4.60	9.41
LEP (P41159)	38.66	97.62	9.58	15.25	4.92	29.23	4.85	3.89
LOX-1 (P78380)	33.94	20.03	7.46	39.01	1.31	30.86	3.49	49.15
LPL (P06858)	40.42	22.54	10.82	3.86	7.81	38.63	6.81	9.11
MARCO (Q9UEW3)	61.68	63.00	10.55	4.13	36.05	94.81	10.42	20.78
MERTK (Q12866)	20.51	29.53	7.32	3.72	19.79	8.95	4.07	34.04
MMP-12 (P39900)	50.53	51.23	11.35	27.34	21.03	47.33	9.17	54.56
MMP-7 (P09237)	28.94	8.39	8.44	0.39	8.26	46.14	4.30	9.41
NEMO (Q9Y6K9)	35.54	58.23	5.30	8.65	1.51	36.45	2.08	44.20
PAPPA (Q13219)	6.80	24.96	10.67	18.95	38.75	54.06	6.02	28.78
PAR-1 (P25116)	22.30	38.55	6.31	5.00	16.73	43.67	1.52	8.66
PARP-1 (P09874)	28.00	25.99	6.67	6.00	8.50	45.70	3.69	7.40
PD-L2 (Q9BQ51)	23.54	33.27	6.10	17.42	15.88	7.47	4.44	2.18
PDGF subunit B (P01127)	56.80	61.84	10.31	29.33	29.15	75.67	5.76	0.00
PGF (P49763)	17.66	7.95	7.24	9.54	23.96	45.94	4.25	18.60
PIgR (P01833)	23.51	10.29	7.13	5.59	16.33	48.47	2.91	33.42
PRELP (P51888)	9.50	37.28	6.38	31.50	34.60	50.54	5.13	13.64
PRSS27 (Q9BQR3)	58.01	28.22	10.57	9.37	30.69	33.63	9.27	2.38

PRSS8 (Q16651)	34.61	29.17	7.25	28.29	0.51	54.90	3.05	10.02
PSGL-1 (Q14242)	55.51	24.09	9.29	19.83	28.11	60.88	6.03	14.46
PTX3 (P26022)	27.94	94.99	52.55	41.22	87.77	91.44	40.91	7.65
RAGE (Q15109)	18.87	11.88	8.29	28.98	21.83	22.21	4.15	39.26
REN (P00797)	33.00	73.93	9.98	5.23	3.16	64.79	4.63	17.16
SERPINA12 (Q8IW75)	22.27	93.40	9.74	5.98	17.96	99.51	7.48	22.56
SLAMF7 (Q9NQ25)	25.25	23.65	6.86	9.12	13.21	3.26	4.45	32.43
SOD2 (P04179)	30.16	33.43	7.11	5.66	7.25	13.85	5.20	12.39
SORT1 (Q99523)	26.89	79.41	8.78	37.77	10.78	66.96	4.93	15.76
SPON2 (Q9BUD6)	2.26	22.46	11.08	30.38	53.58	83.14	6.58	43.60
SRC (P12931)	51.83	9.42	6.94	68.89	23.87	20.77	2.35	16.07
STK4 (Q13043)	46.23	0.00	5.74	2.55	16.08	23.34	0.73	18.22
TF (P13726)	36.38	0.00	9.44	20.79	2.28	0.00	3.48	33.32
TGM2 (P21980)	25.12	29.21	8.15	16.22	13.82	50.64	4.00	18.88
THBS2 (P35442)	16.98	73.53	8.81	36.26	24.26	75.07	4.16	13.27
THPO (P40225)	45.89	51.55	9.21	8.03	14.86	58.80	3.66	6.31
TIE2 (Q02763)	13.14	92.53	9.52	4.45	29.90	70.52	4.80	32.14
TM (P07204)	39.20	34.50	7.50	47.54	5.76	18.60	6.32	12.67
TNFRSF10A (O00220)	1.74	29.29	7.60	3.67	44.93	29.72	4.75	23.62
TNFRSF11A (Q9Y6Q6)	2.82	95.47	13.52	44.08	54.13	42.43	9.98	44.26
TNFRSF13B (O14836)	26.85	20.39	6.07	31.38	11.56	23.15	1.89	3.34
TRAIL-R2 (O14763)	11.16	72.73	15.08	4.21	64.91	100.00	14.80	0.22
VEGFD (O43915)	14.68	6.36	10.76	38.04	28.40	22.60	6.78	56.13
VSIG2 (Q96IQ7)	19.89	39.03	6.70	11.94	20.63	55.49	4.66	17.75
XCL1 (P47992)	11.11	53.26	7.24	4.94	32.42	27.40	1.68	18.44
ALCAM (Q13740)	28.15	0.00	5.38	20.70	11.71	0.00	0.36	33.05
AP-N (P15144)	14.71	41.85	8.41	2.75	27.96	48.32	3.58	16.87
AXL (P30530)	23.88	7.31	6.09	6.93	17.43	24.33	2.19	11.53
AZU1 (P20160)	31.92	16.30	5.24	29.43	8.19	30.17	1.03	7.88
BLM hydrolase (Q13867)	26.06	27.11	6.07	39.91	14.40	11.13	1.90	56.54
CASP-3 (P42574)	59.49	23.09	9.00	8.38	25.47	0.00	2.14	58.96
CCL15 (Q16663)	11.25	13.75	6.93	11.82	33.69	81.45	4.42	16.98
CCL16 (O15467)	16.07	26.83	8.36	10.88	27.49	0.00	4.64	26.68
CCL22 (O00626)	67.62	50.79	10.02	17.98	35.89	40.65	6.66	8.46
CCL24 (O00175)	29.16	37.04	7.90	3.11	11.89	38.28	4.02	39.69

CD163 (Q86VB7)	25.33	2.62	6.86	17.35	15.69	18.79	2.18	8.07
CD93 (Q9NPY3)	29.99	38.55	6.55	18.54	10.04	30.02	2.26	22.86
CDH5 (P33151)	36.14	0.00	6.73	4.25	2.51	16.22	1.42	25.02
CHI3L1 (P36222)	19.82	77.82	6.91	33.88	21.11	70.87	2.64	42.21
CHIT1 (Q13231)	63.10	35.45	9.70	4.49	29.34	52.67	8.43	26.21
CNTN1 (Q12860)	51.95	9.34	6.68	10.43	15.56	25.27	1.44	0.29
COL1A1 (P02452)	40.45	67.57	9.30	18.42	3.66	32.74	4.12	30.88
CPA1 (P15085)	22.17	83.74	7.12	4.05	18.13	50.69	2.60	24.37
CPB1 (P15086)	30.13	49.68	7.78	36.85	8.60	22.60	4.40	7.72
CSTB (P04080)	14.05	6.60	4.01	13.07	28.55	3.61	0.00	20.96
CTSD (P07339)	14.19	30.60	7.22	0.35	29.59	29.53	3.23	7.36
CTSZ (Q9UBR2)	32.39	79.29	6.90	16.19	6.72	69.73	4.85	39.05
CXCL16 (Q9H2A7)	14.93	5.13	6.16	1.52	26.43	13.75	1.59	1.54
DLK-1 (P80370)	48.74	11.69	11.52	4.81	12.09	38.48	6.37	11.44
EGFR (P00533)	47.65	7.63	6.49	11.65	10.62	0.00	1.84	17.70
Ep-CAM (P16422)	64.35	57.31	11.44	15.94	29.03	55.19	6.78	7.56
EPHB4 (P54760)	9.79	5.96	6.10	2.02	34.26	11.72	2.12	15.95
FABP4 (P15090)	17.00	100.00	36.33	40.29	69.53	86.89	24.92	22.79
FAS (P25445)	43.36	85.69	11.06	24.77	5.79	82.39	7.37	47.77
Gal-3 (P17931)	44.20	65.90	7.17	6.39	7.23	20.28	1.79	40.72
Gal-4 (P56470)	43.61	21.74	11.02	1.16	6.09	58.51	4.19	19.23
GDF-15 (Q99988)	15.73	100.00	19.68	22.60	66.16	100.00	18.77	52.86
GRN (P28799)	16.16	15.50	6.39	16.14	24.78	7.91	1.45	18.17
ICAM-2 (P13598)	17.24	35.61	6.47	31.87	25.02	5.74	2.25	36.17
IGFBP-1 (P08833)	14.15	67.97	6.91	6.14	27.79	56.78	3.60	17.64
IGFBP-2 (P18065)	0.31	43.40	8.59	20.54	48.68	22.70	5.71	7.41
IGFBP-7 (Q16270)	14.30	31.36	5.68	26.06	28.28	36.50	1.21	25.16
IL-17RA (Q96F46)	37.83	10.33	6.98	15.99	0.00	10.73	3.39	23.04
IL-18BP (O95998)	30.16	23.45	5.07	34.93	9.29	0.00	3.52	3.33
IL-1RT1 (P14778)	19.62	17.01	5.70	11.27	21.65	5.04	2.59	21.73
IL-1RT2 (P27930)	28.94	21.30	6.39	25.65	11.97	46.04	2.23	11.44
IL-6RA (P08887)	33.30	45.75	7.31	52.99	5.71	24.23	2.60	25.93
IL2-RA (P01589)	2.22	6.68	9.11	27.70	43.49	22.95	4.29	48.28
ITGB2 (P05107)	68.46	27.98	14.98	35.54	37.05	24.83	11.29	54.68
JAM-A (Q9Y624)	47.05	37.96	8.04	4.63	12.03	11.33	3.54	17.22

KLK6 (Q92876)	40.10	26.19	6.70	16.97	2.31	60.44	1.82	16.49
LDL receptor (P01130)	57.14	40.54	7.50	10.91	20.86	36.15	5.04	16.33
LTBR (P36941)	10.08	0.00	5.78	8.93	32.77	7.42	1.14	19.17
MB (P02144)	13.29	63.04	8.36	1.45	29.90	66.32	3.37	54.25
MCP-1 (P13500)	25.36	0.00	5.85	9.49	16.71	18.30	1.74	11.53
MEPE (Q9NQ76)	38.30	16.34	7.10	22.85	1.13	22.45	3.89	5.65
MMP-2 (P08253)	39.52	71.34	9.60	34.31	1.64	26.36	5.36	29.90
MMP-3 (P08254)	55.75	85.17	22.60	100.00	20.94	86.25	16.60	96.19
MMP-9 (P14780)	13.64	54.17	9.08	45.76	30.22	12.12	3.88	12.38
MPO (P05164)	22.87	30.96	6.24	18.38	20.60	18.99	2.40	5.95
Notch 3 (Q9UM47)	34.87	18.80	7.27	24.24	3.54	23.29	3.07	55.47
NT-proBNP (NA)	7.57	26.95	12.50	3.82	57.93	36.00	7.92	8.39
OPG (O00300)	25.28	18.08	7.60	7.08	13.76	50.64	3.62	28.62
OPN (P10451)	28.17	44.71	40.00	55.60	81.45	75.87	33.18	64.57
PAI (P05121)	54.25	86.84	8.95	33.47	19.05	28.88	6.82	7.97
PCSK9 (Q8NBP7)	36.24	81.16	8.17	11.49	2.21	0.00	3.08	44.70
PDGF subunit A (P04085)	67.99	18.72	13.65	57.23	36.28	16.27	9.95	49.36
PECAM-1 (P16284)	54.00	22.50	13.08	14.60	18.09	7.67	4.05	28.24
PGLYRPI (O75594)	13.20	43.12	6.58	26.52	32.06	20.92	3.63	40.22
PI3 (P19957)	24.47	39.63	5.92	20.76	17.16	0.00	1.64	33.07
PLC (P98160)	10.63	12.44	5.06	45.13	31.70	21.66	1.69	38.59
PON3 (Q15166)	71.68	19.95	10.44	21.23	37.22	21.41	4.32	15.82
PRTN3 (P24158)	28.06	22.77	5.48	20.78	12.71	24.04	1.64	7.07
PSP-D (P35247)	22.88	58.98	9.07	36.84	19.36	38.08	4.09	5.61
RARRES2 (Q99969)	36.47	0.00	6.54	32.08	2.33	0.00	2.60	18.92
RETN (Q9HD89)	16.79	11.72	6.78	33.63	26.17	23.15	2.40	5.29
SCGB3A2 (Q96PL1)	27.32	81.84	9.03	7.14	11.76	32.84	3.58	17.75
SELE (P16581)	30.60	14.35	6.03	8.70	11.31	15.33	2.40	12.67
SELP (P16109)	57.58	54.33	9.55	52.46	22.24	27.20	3.11	1.30
SHPS-1 (P78324)	31.87	23.85	7.01	2.77	7.39	23.69	3.38	5.43
SPON1 (Q9HCB6)	3.46	11.01	8.47	45.92	52.23	11.37	4.08	81.95
ST2 (Q01638)	19.32	90.62	38.47	46.90	71.22	63.90	25.41	51.87
t-PA (P00750)	38.48	51.07	9.04	11.97	0.78	27.15	6.37	26.99
TFF3 (Q07654)	3.98	6.00	7.82	8.61	39.60	12.41	2.91	38.06
TFPI (P10646)	22.38	43.20	7.28	22.75	18.50	47.58	2.33	37.00

TIMP4 (Q99727)	18.20	11.88	7.22	23.85	24.88	24.93	3.88	31.02
TLT-2 (Q5T2D2)	47.88	8.74	7.08	8.98	10.88	0.00	3.61	6.11
TNF-R1 (P19438)	2.90	48.05	7.14	11.34	50.42	37.69	2.41	21.67
TNF-R2 (P20333)	4.48	0.00	6.15	7.19	39.40	0.00	1.43	19.38
TNFRSF10C (O14798)	18.56	0.00	7.15	16.82	24.05	43.92	1.11	39.30
TNFRSF14 (Q92956)	16.60	0.00	5.08	10.39	25.37	0.00	0.75	8.43
TNFSF13B (Q9Y275)	20.38	7.23	6.81	17.28	23.07	30.07	2.52	6.78
TR-AP (P13686)	51.14	55.64	7.78	24.62	15.55	32.05	4.11	14.11
TR (P02786)	17.50	72.77	28.46	17.52	69.19	99.11	24.00	42.61
U-PAR (Q03405)	5.33	36.17	10.21	20.34	53.77	45.10	6.26	12.58
uPA (P00749)	58.47	58.74	12.25	28.45	24.38	83.83	8.99	41.75
vWF (P04275)	45.31	51.83	7.74	0.55	7.90	16.96	5.06	27.19
ARNT (P27540)	38.96	46.30	11.15	7.15	5.75	42.09	7.07	5.62
BACH1 (O14867)	28.00	86.57	7.36	25.54	9.76	73.10	5.79	35.42
BIRC2 (Q13490)	33.80	37.56	7.85	3.30	2.26	5.34	3.40	39.19
BTN3A2 (P78410)	17.43	68.92	7.13	11.68	24.30	72.75	4.78	18.00
CCL11 (P51671)	52.27	65.02	11.05	39.09	22.61	19.04	6.89	11.97
CD28 (P10747)	47.54	15.94	9.08	7.80	16.05	0.00	6.07	11.93
CD83 (Q01151)	38.53	19.12	7.58	24.34	3.67	32.59	3.75	14.07
CDSN (Q15517)	19.30	71.58	7.54	5.41	21.58	63.95	3.14	10.66
CKAP4 (Q07065)	5.49	21.10	12.02	59.56	58.33	57.27	8.78	93.16
CLEC4A (Q9UMR7)	55.35	48.81	9.54	3.43	27.00	69.39	4.26	2.09
CLEC4C (Q8WTT0)	51.95	30.48	7.75	34.85	23.08	37.44	5.01	79.41
CLEC4D (Q8WXI8)	15.12	58.27	7.53	22.48	27.77	85.06	3.32	16.62
CLEC4G (Q6UXB4)	3.18	74.05	9.81	6.46	43.93	100.00	6.95	18.81
CLEC6A (Q6EIG7)	18.03	16.61	7.54	3.40	23.86	36.80	2.73	13.28
CLEC7A (Q9BXN2)	16.63	59.14	7.63	33.85	25.68	96.54	5.04	23.57
CNTNAP2 (Q9UHC6)	38.83	60.10	7.63	37.13	4.34	27.50	4.47	36.11
CXADR (P78310)	2.35	5.25	7.45	0.38	44.63	41.74	5.67	40.92
CXCL12 (P48061)	13.41	18.96	7.82	2.59	30.03	15.63	4.26	3.71
DAPP1 (Q9UN19)	49.99	60.77	5.24	12.90	20.38	14.19	1.28	31.12
DCBLD2 (Q96PD2)	37.60	29.97	7.09	9.00	2.41	7.81	5.87	25.67
DCTN1 (Q14203)	41.14	0.00	6.22	18.17	8.31	0.00	1.54	17.31
DDX58 (O95786)	36.72	31.24	6.74	10.12	2.13	8.65	3.09	5.05
DFFA (O00273)	34.44	2.82	5.83	1.87	0.89	0.00	0.80	36.03

DGKZ (Q13574)	40.58	4.61	6.61	10.49	6.65	15.38	3.90	9.15
DPP10 (Q8N608)	20.95	100.00	6.25	2.53	19.60	100.00	3.60	62.03
EDAR (Q9UNE0)	60.74	52.11	11.93	19.89	34.91	53.17	8.39	8.94
EGLN1 (Q9GZT9)	17.36	6.80	6.21	2.33	24.59	13.40	2.66	17.59
EIF4G1 (Q04637)	36.56	0.00	4.65	42.03	1.95	0.00	0.50	6.56
EIF5A (P63241)	26.09	0.00	8.09	0.88	12.64	20.77	3.89	9.84
FAM3B (P58499)	39.29	33.82	7.89	30.85	4.97	41.54	5.59	39.52
FCRL3 (Q96P31)	43.82	33.74	7.64	2.65	10.98	11.97	4.31	2.23
FCRL6 (Q6DN72)	50.26	47.62	10.06	26.82	20.27	13.06	4.07	13.50
FGF2 (P09038)	48.15	49.44	7.67	30.20	17.63	18.35	1.96	12.63
FXYD5 (Q96DB9)	38.00	8.51	6.33	23.86	3.46	73.54	5.22	4.07
GALNT3 (Q14435)	26.26	14.51	8.29	3.03	12.46	18.40	5.46	6.22
GLB1 (P16278)	41.40	49.76	5.48	1.92	7.66	38.63	1.60	16.00
HCLS1 (P14317)	43.59	0.00	5.27	20.39	11.31	9.79	1.07	6.01
HEXIM1 (O94992)	30.14	5.48	4.21	2.46	6.70	0.00	3.54	31.02
HNMT (P50135)	17.76	28.50	6.89	1.02	23.84	0.00	3.90	13.12
HSD11B1 (P28845)	33.72	8.55	8.18	10.15	2.16	15.68	3.41	5.54
ICA1 (Q05084)	42.38	44.79	6.14	11.78	9.86	51.58	2.89	28.90
IFNLR1 (Q8IU57)	49.45	12.40	9.86	28.77	18.97	71.07	7.78	9.15
IL10 (P22301)	0.60	2.86	10.85	29.60	47.98	6.08	8.85	30.43
IL12RB1 (P42701)	22.26	42.89	6.71	28.53	17.95	16.37	3.05	3.61
IL5 (P05113)	24.26	44.83	8.55	9.21	16.04	16.32	4.60	1.88
IRAK1 (P51617)	32.84	6.56	4.34	22.04	2.85	14.24	1.63	50.08
IRAK4 (Q9NWZ3)	45.97	0.00	6.22	5.62	14.96	0.00	0.02	36.76
IRF9 (Q00978)	44.31	11.96	6.14	10.14	11.98	35.66	2.23	25.48
ITGA11 (Q9UKX5)	100.00	98.81	77.26	24.29	88.20	98.81	63.01	45.80
ITGA6 (P23229)	61.10	38.12	9.31	14.39	35.24	74.58	3.45	31.08
ITGB6 (P18564)	65.77	87.72	30.65	27.57	41.28	93.22	25.93	68.59
ITM2A (O43736)	9.47	12.52	10.28	17.29	35.26	57.22	7.23	18.55
JUN (P05412)	26.13	3.22	6.37	16.90	12.87	14.49	4.51	15.54
KLRD1 (Q13241)	28.19	33.11	6.79	35.89	10.11	30.46	4.43	20.25
KPNA1 (P52294)	37.53	22.46	8.68	12.15	3.80	43.27	5.61	4.94
KRT19 (P08727)	9.65	6.68	6.96	13.28	34.93	38.97	3.51	11.06
LAG3 (P18627)	36.73	61.65	9.53	21.77	2.24	96.39	3.99	23.59
LAMP3 (Q9UQV4)	24.20	69.28	7.88	0.03	15.76	17.21	3.97	26.09

LILRB4 (Q8NHJ6)	0.00	100.00	8.48	39.35	51.03	100.00	2.84	35.81
LY75 (O60449)	49.53	27.23	9.98	0.85	19.88	16.32	4.96	18.89
MASPI (P48740)	43.47	10.14	10.17	59.11	10.90	38.33	5.44	7.27
MGMT (P16455)	32.97	11.80	5.74	32.63	2.95	11.13	2.62	8.01
MILR1 (Q7Z6M3)	16.11	33.35	7.70	37.30	26.37	63.80	3.71	20.04
NCR1 (O76036)	33.08	41.73	6.20	7.04	3.23	65.23	4.20	20.88
NF2 (P35240)	46.43	29.25	6.63	79.99	15.28	9.40	1.07	86.79
NFATC3 (Q12968)	25.71	20.43	7.95	10.68	13.46	82.00	5.37	16.61
NTF4 (P34130)	41.77	60.29	7.35	40.11	7.91	93.18	3.58	18.76
PADI2 (Q9Y2J8)	25.04	72.97	8.53	28.19	13.73	53.21	5.91	8.65
PIK3AP1 (Q6ZUJ8)	25.68	9.58	6.64	52.74	13.13	6.82	2.35	3.74
PLXNA4 (Q9HCM2)	51.79	69.32	7.19	57.86	22.57	0.00	1.99	25.14
PPP1R9B (Q96SB3)	51.48	24.24	5.39	15.32	22.49	52.13	1.48	1.91
PRDX1 (Q06830)	35.21	12.60	5.88	23.18	0.07	60.88	2.82	20.91
PRDX3 (P30048)	34.79	0.00	5.79	48.47	0.79	0.00	1.75	3.87
PRDX5 (P30044)	42.87	6.56	5.47	62.54	10.78	23.49	0.99	14.47
PRKCQ (Q04759)	43.85	14.90	8.88	15.48	11.00	58.16	5.24	14.91
PSIP1 (O75475)	16.70	4.77	6.32	4.33	24.65	38.48	3.81	8.21
PTH1R (Q03431)	16.66	64.31	11.25	20.82	25.18	62.81	6.51	29.81
SH2B3 (Q9UQQ2)	45.98	13.63	5.83	13.64	15.24	45.75	2.73	20.89
SH2D1A (O60880)	40.02	2.66	6.23	5.78	6.59	40.65	1.00	25.98
SIT1 (Q9Y3P8)	30.06	55.37	7.61	16.35	7.55	37.54	5.15	1.27
SPRY2 (O43597)	45.36	34.30	6.03	11.85	14.15	0.00	2.44	51.37
SRPK2 (P78362)	43.91	14.90	5.26	41.50	11.93	10.78	1.08	3.16
STC1 (P52823)	11.54	0.00	7.52	16.98	33.04	62.17	4.44	38.03
TANK (Q92844)	33.10	0.00	6.74	4.20	2.97	23.05	4.52	7.36
TPSAB1 (Q15661)	48.97	88.04	8.90	0.46	17.72	80.42	5.42	4.22
TRAF2 (Q12933)	28.73	40.62	6.39	16.27	8.30	19.68	2.41	16.83
TREM1 (Q9NP99)	4.32	66.06	7.91	5.25	41.73	56.53	4.01	45.48
TRIM21 (P19474)	38.34	52.23	5.72	4.29	4.43	16.47	2.11	18.14
TRIM5 (Q9C035)	27.62	19.83	6.23	33.40	9.94	11.23	2.85	7.27
ZBTB16 (Q05516)	27.66	26.79	6.60	16.91	9.94	43.27	3.73	10.16
5-NT (P21589)	6.54	43.24	7.79	6.92	38.23	24.93	5.70	11.51
ABL1 (P00519)	31.62	0.00	5.39	54.75	3.47	8.70	2.38	31.31
ADAM-TS 15 (Q8TE58)	27.52	50.76	7.24	8.42	9.74	65.83	4.51	3.26

ADAM8 (P78325)	34.97	41.53	8.15	12.41	0.60	34.27	4.01	32.89
ANXA1 (P04083)	38.55	28.26	8.59	22.30	4.87	26.85	3.10	7.21
AREG (P15514)	5.48	41.41	12.01	12.78	57.35	21.91	10.54	24.74
CAIX (Q16790)	2.99	17.89	11.37	18.19	42.83	51.14	6.42	39.86
CD160 (O95971)	38.68	15.54	8.85	1.22	4.92	17.46	4.16	5.62
CD207 (Q9UJ71)	61.87	3.97	16.57	19.20	36.75	44.51	13.33	34.32
CD27 (P26842)	9.22	76.23	7.16	1.18	35.03	43.97	2.72	10.68
CD48 (P09326)	38.42	19.20	8.21	7.70	4.45	16.72	4.72	13.37
CD70 (P32970)	38.09	53.78	8.61	22.65	4.53	51.78	6.33	28.13
CDKN1A (P38936)	41.40	34.02	5.64	18.16	9.16	0.00	2.82	2.15
CEACAM1 (P13688)	8.38	68.36	11.11	38.33	36.44	64.64	7.89	24.04
CEACAM5 (P06731)	23.31	42.93	8.84	0.30	15.70	49.11	6.77	11.80
CPE (P16870)	50.77	58.82	14.92	18.47	21.09	43.03	9.51	47.37
CRNN (Q9UBG3)	56.58	45.11	9.59	14.75	29.07	40.36	4.11	24.61
CTSV (O60911)	51.46	7.79	7.87	46.55	21.93	28.34	4.14	46.84
CXCL13 (O43927)	13.20	97.85	8.25	6.49	30.13	76.16	4.03	2.62
CXL17 (Q6UXB2)	5.00	11.96	9.04	18.96	40.92	100.00	4.22	13.37
CYR61 (O00622)	61.24	95.19	26.03	32.40	35.73	97.77	30.02	51.66
DLL1 (O00548)	17.16	14.39	4.49	41.41	24.43	5.89	2.25	41.22
EGF (P01133)	56.14	58.31	7.41	7.62	29.22	66.91	2.90	20.33
EPHA2 (P29317)	16.10	39.47	7.12	7.72	25.25	4.01	1.34	14.02
ERBB2 (P04626)	41.05	24.68	5.93	28.51	8.12	46.83	3.56	1.07
ERBB3 (P21860)	42.39	18.24	7.86	11.57	9.93	28.73	2.75	27.30
ERBB4 (Q15303)	30.44	62.12	7.10	7.99	5.89	31.45	3.56	20.59
ESM-1 (Q9NQ30)	19.03	85.89	30.76	16.84	76.03	34.12	26.51	14.30
FADD (Q13158)	41.92	0.00	6.09	49.68	9.94	0.00	2.52	3.64
FASLG (P48023)	66.06	0.00	12.13	19.91	42.08	22.11	12.17	5.82
FCRLB (Q6BAA4)	6.67	57.00	8.99	23.50	38.75	66.77	3.72	1.32
FGF-BP1 (Q14512)	11.31	100.00	32.92	16.12	65.79	100.00	46.92	63.23
FR-alpha (P15328)	26.34	8.27	6.40	7.71	11.76	36.50	2.78	2.86
FR-gamma (P41439)	26.66	38.75	10.61	3.35	11.34	24.93	6.45	5.43
FURIN (P09958)	41.53	65.94	8.15	8.69	9.06	61.52	5.41	8.08
Gal-1 (P09382)	43.56	50.40	7.29	9.11	11.89	36.15	3.68	0.15
GPC1 (P35052)	40.73	17.93	11.09	6.54	7.45	69.29	7.10	15.40
GPNMB (Q14956)	48.08	72.97	14.29	36.37	18.24	85.66	11.54	51.96

GZMB (P10144)	42.91	76.23	8.53	14.21	11.43	74.38	4.09	14.88
GZMH (P20718)	29.66	40.46	7.30	31.54	7.26	75.32	3.13	6.92
HGF (P14210)	26.59	100.00	43.20	16.34	87.30	99.06	39.98	8.35
hK11 (Q9UBX7)	13.72	15.34	5.86	10.44	28.57	49.80	2.72	22.28
hK14 (Q9P0G3)	50.28	27.94	10.61	15.93	19.83	63.25	7.33	16.47
hK8 (O60259)	49.98	28.66	9.14	4.65	20.04	40.26	6.29	23.96
ICOSLG (O75144)	65.49	36.25	16.64	38.66	40.68	12.86	12.71	23.19
IFN-gamma-R1 (P15260)	9.04	0.00	5.91	20.36	35.13	6.58	3.02	28.63
IGF1R (P08069)	16.52	55.45	6.96	6.17	24.83	56.82	2.68	39.69
IL6 (P05231)	33.80	100.00	82.84	19.98	96.30	100.00	69.86	65.31
ITGAV (P06756)	77.66	90.54	35.22	1.66	58.01	68.20	35.40	29.02
ITGB5 (P18084)	70.24	90.78	30.47	7.32	48.46	88.33	29.64	20.52
KLK13 (Q9UKR3)	62.75	51.07	11.37	20.59	37.76	73.99	8.98	15.68
LY9 (Q9HBG7)	34.02	25.24	6.38	12.47	1.36	6.08	2.92	37.42
LYN (P07948)	55.12	33.43	7.14	9.52	28.33	4.30	2.20	13.69
LYPD3 (O95274)	52.13	34.02	9.23	26.77	21.77	8.06	4.18	14.85
MAD homolog 5 (Q99717)	54.71	21.30	8.30	25.07	26.94	97.03	6.32	26.92
MetAP 2 (P50579)	34.99	49.36	5.84	38.19	0.76	45.94	3.65	28.57
MIA (Q16674)	52.83	22.50	9.87	4.80	23.16	62.91	4.65	45.71
MIC-A/B (Q29983)	22.86	53.06	9.47	14.78	16.50	11.72	4.84	19.00
MK (P21741)	15.23	100.00	46.55	26.16	71.22	100.00	43.28	20.77
MSLN (Q13421)	18.71	28.50	7.47	6.56	22.64	89.81	4.74	10.38
MUC-16 (Q8WXI7)	36.54	100.00	100.00	58.77	100.00	100.00	100.00	54.31
PODXL (O00592)	46.41	10.14	7.22	10.11	14.54	36.15	2.97	30.25
PPY (P01298)	1.63	83.27	12.32	18.45	46.47	73.69	9.22	30.45
PVRL4 (Q96NY8)	28.80	49.68	6.34	55.38	8.15	18.00	1.77	4.38
RET (P07949)	75.80	77.19	16.27	36.89	55.10	82.05	15.05	23.48
RSPO3 (Q9BXY4)	4.63	6.12	10.80	2.83	56.30	4.40	7.91	17.30
S100A11 (P31949)	31.12	49.48	7.97	28.57	5.04	99.70	2.89	36.57
S100A4 (P26447)	37.80	13.87	7.35	12.92	4.37	64.39	2.63	43.68
SCAMP3 (O14828)	41.58	2.50	6.34	38.20	9.33	0.00	2.25	7.50
SCF (P21583)	69.42	50.44	13.55	14.70	46.56	84.87	8.76	52.86
SEZ6L (Q9BYH1)	45.82	22.54	9.04	14.42	14.97	8.31	4.93	11.92
SPARC (P09486)	57.52	77.74	10.17	43.19	30.42	65.13	6.92	8.72
SYND1 (P18827)	33.47	99.17	69.99	28.41	95.69	100.00	77.80	100.00

TCL1A (P56279)	45.37	5.96	6.37	13.72	13.26	0.00	1.61	15.39
TFPI-2 (P48307)	21.63	72.34	28.97	39.09	79.65	84.08	31.70	95.29
TGF-alpha (P01135)	8.29	54.97	12.06	37.67	61.61	19.44	10.35	7.25
TGFR-2 (P37173)	20.39	24.17	5.72	28.72	19.73	30.32	1.55	2.94
TLR3 (O15455)	46.71	37.92	10.91	8.11	14.75	77.50	6.89	13.13
TNFRSF19 (Q9NS68)	16.74	27.23	4.62	64.33	24.63	9.64	1.24	23.57
TNFRSF4 (P43489)	24.02	0.00	5.54	34.24	15.40	20.67	2.71	50.59
TNFRSF6B (O95407)	8.76	45.83	7.05	47.44	35.08	64.84	2.27	63.13
TNFSF13 (O75888)	2.13	56.96	10.47	9.80	52.84	69.29	7.17	16.33
TRAIL (P50591)	67.68	41.26	13.76	6.85	44.04	44.71	8.28	11.82
TXLNA (P40222)	37.08	27.82	5.18	12.18	3.66	26.85	0.96	53.11
VEGFA (P15692)	10.32	54.53	6.54	15.58	33.62	0.00	2.85	47.73
VEGFR-2 (P35968)	44.70	29.37	7.60	19.65	11.99	84.08	3.70	1.97
VEGFR-3 (P35916)	16.30	51.39	8.66	23.34	26.24	40.21	4.05	17.08
VIM (P08670)	3.71	0.00	9.06	7.48	41.45	5.44	7.78	49.44
WFDC2 (Q14508)	8.29	11.37	13.08	37.67	61.43	43.03	13.58	65.41
WIF-1 (Q9Y5W5)	26.12	11.80	7.46	30.79	12.17	0.00	4.82	32.48
WISP-1 (O95388)	3.49	12.88	5.26	15.74	42.62	78.14	2.81	14.53
XPNPEP2 (O43895)	45.72	15.58	9.34	7.91	14.48	16.37	4.65	13.71

**Supplementary Table 7. Classification of All-cause mortality in Inpatients through Day 180: Comparison of variable importance derived by applying various classification methods on the training data. Within each column, variable importance results were scaled to a range of 0 (least important) to 100 (most important).**

Variable	Local, central, Singulex, and Olink data				Olink data only			
	ROC	C5.0	Random Forests	Neural Networks	ROC	C5.0	Random Forests	Neural Networks
Atrial fibrillation	19.17	0.00	3.40	13.10				
Age, years	68.31	85.66	60.50	24.65				
Albumin, g/L	47.99	14.70	24.78	21.91				
Body mass index, kg/m <sup>2</sup>	20.90	94.04	46.05	24.02				
CABG	23.07	8.50	1.74	3.98				
COPD	17.68	13.58	1.41	8.07				
Diastolic blood pressure	48.88	97.11	27.21	16.16				
Diabetes mellitus	11.70	0.00	0.23	15.66				
eGFR, mL/min/1.73m <sup>2</sup>	96.97	100.00	91.94	68.64				
HDL, mmol/L	3.78	85.42	23.70	51.14				
Hemoglobin, g/dL	80.26	99.65	55.93	96.05				
Heart rate, bpm	6.98	59.68	22.78	2.85				
Hypertension	2.20	18.95	0.85	23.20				
Ischemic heart disease	16.50	0.00	4.28	41.76				
LDL, mmol/L	0.44	10.92	28.89	15.43				
Aldosterone, pg/mL, log <sub>2</sub>	15.99	46.10	32.83	66.71				
Alkaline phosphatase, µg/L, log <sub>2</sub>	26.69	46.28	22.69	16.49				
ALT, U/L, log <sub>2</sub>	8.51	71.78	22.20	52.23				
AST, U/L, log <sub>2</sub>	17.77	96.87	28.82	16.72				
ET-1, pg/mL, log <sub>2</sub>	64.13	100.00	61.54	55.17				
Ferritin, µg/L, log <sub>2</sub>	15.21	80.11	33.00	16.21				
GGT, U/L, log <sub>2</sub>	22.16	70.31	23.10	0.41				
Glucose, mmol/L, log <sub>2</sub>	16.68	86.13	34.41	1.74				
Hepcidin, nmol/L, log <sub>2</sub>	27.74	77.69	33.45	54.91				
Serum iron, µmol/L, log <sub>2</sub>	40.70	57.79	26.86	41.62				
Phosphate, mmol/L, log <sub>2</sub>	7.93	8.44	20.94	17.12				
Platelet count, 10 <sup>9</sup> /L, log <sub>2</sub>	15.63	54.60	34.99	75.81				
pro-ENK, pmol/L, log <sub>2</sub>	95.38	75.09	79.68	38.84				
Total bilirubin, µmol/L, log <sub>2</sub>	17.29	53.84	18.47	15.26				
Triglycerides, mmol/L, log <sub>2</sub>	5.39	45.63	28.59	12.27				

Troponin I, pg/mL, log2	63.29	79.93	57.52	9.18				
Troponin T, pg/mL, log2	82.33	100.00	80.40	9.59				
Urea, mmol/L, log2	48.45	28.87	29.66	17.76				
White blood cell count, 10 <sup>9</sup> /L, log2	11.08	44.81	32.23	15.31				
LVEF, %	19.88	31.76	24.01	4.28				
Male sex	13.13	0.00	2.69	24.29				
Myocardial infarction	28.97	0.00	1.57	3.45				
Peripheral artery disease	4.03	5.84	0.94	0.30				
HF hospitalization in last year	21.33	0.00	3.01	7.19				
PCI	2.52	0.00	1.48	5.79				
Potassium, mmol/L	7.15	78.10	14.30	21.35				
Red blood cell count, 10 <sup>12</sup> /L	32.58	22.61	49.56	27.47				
Systolic blood pressure, mmHg	31.55	89.08	46.98	37.65				
Sodium, mmol/L	42.56	99.94	44.26	48.56				
Stroke	8.12	15.29	0.00	12.98				
Transferrin, g/L	23.18	97.46	15.09	62.72				
ACE2 (Q9BYF1)	28.59	95.34	21.74	39.01	25.35	84.31	15.99	60.83
ADAM-TS13 (Q76LX8)	56.14	34.83	49.82	28.59	71.16	94.56	65.20	100.00
ADM (P35318)	92.11	89.20	81.68	1.76	97.49	96.65	84.06	6.92
AGRP (O00253)	76.06	72.31	29.11	53.50	77.83	52.79	18.53	8.11
AMBP (P02760)	36.57	16.23	22.30	7.82	35.48	69.53	4.42	54.36
ANG-1 (Q15389)	5.41	81.05	18.97	7.03	13.33	98.33	14.98	38.93
BMP-6 (P22004)	32.23	26.56	23.70	22.71	28.05	10.46	13.95	36.76
BNP (P16860)	76.27	0.00	49.78	64.10	79.28	100.00	59.28	49.90
BOC (Q9BWV1)	51.84	38.37	35.85	14.17	50.76	100.00	34.81	4.00
CA5A (P35218)	12.84	49.70	22.97	54.17	7.31	92.54	13.71	15.21
CCL17 (Q92583)	2.35	30.99	25.40	16.21	5.63	100.00	17.69	7.65
CCL3 (P10147)	54.26	44.63	25.33	5.79	53.15	28.80	9.87	7.01
CD40-L (P29965)	7.58	79.22	12.73	58.00	16.51	0.00	9.81	17.59
CD4 (P01730)	66.36	96.58	16.92	25.55	66.99	62.13	8.96	14.51
CD84 (Q9UIB8)	46.69	0.00	24.77	68.36	44.75	88.77	13.22	9.69
CEACAM8 (P31997)	52.97	87.72	28.21	1.12	53.85	98.68	15.08	21.07
CTRC (Q99895)	2.46	36.66	30.16	18.96	10.99	73.43	17.95	35.04
CTSL1 (P07711)	63.85	98.52	36.33	29.43	63.73	70.43	28.91	53.36
CXCL1 (P09341)	0.62	73.67	19.75	8.37	6.05	30.61	5.30	22.85

DCN (P07585)	83.40	100.00	82.69	69.93	88.00	100.00	100.00	45.00
DECR1 (Q16698)	4.30	17.71	14.55	27.97	3.06	0.00	6.52	10.43
Dkk-1 (O94907)	56.15	87.66	33.39	56.95	57.56	40.73	24.07	58.27
FABP2 (P12104)	25.57	0.00	28.69	47.86	22.57	68.20	14.33	73.85
FGF-21 (Q9NSA1)	63.77	98.47	45.26	2.77	64.72	95.96	37.83	51.61
FGF-23 (Q9GZV9)	80.93	100.00	57.62	23.74	84.18	100.00	46.87	86.27
FS (P19883)	47.99	100.00	20.51	69.57	47.43	100.00	14.61	86.25
Gal-9 (O00182)	66.45	0.00	18.64	11.86	67.31	12.48	7.98	25.17
GDF-2 (Q9UK05)	9.16	73.02	21.94	11.53	17.05	99.93	10.95	54.71
GH (P01241)	53.78	89.32	36.53	2.96	53.66	80.06	25.14	26.87
GIF (P27352)	1.57	68.36	33.25	18.37	4.68	88.70	26.88	2.36
GLO1 (Q04760)	1.26	7.79	36.74	6.90	4.78	21.97	19.87	7.34
GT (P51161)	60.93	20.90	40.66	56.49	63.01	95.33	35.86	55.15
HAOX1 (Q9UJM8)	3.61	84.71	23.36	1.92	12.73	99.51	17.60	23.01
HB-EGF (Q99075)	1.43	91.09	16.69	35.14	4.44	6.42	9.09	3.15
HO-1 (P09601)	39.29	39.26	18.68	1.08	36.48	26.71	13.10	28.20
hOSCAR (Q8IYS5)	65.96	100.00	27.29	53.09	66.47	100.00	11.53	43.52
HSP 27 (P04792)	18.04	59.86	19.67	24.91	13.21	6.62	6.70	11.20
IDUA (P35475)	2.51	68.65	21.42	30.03	3.58	0.00	7.06	14.67
IgG Fc receptor II-b (P31994)	24.53	20.01	27.02	25.34	21.17	79.92	14.20	15.02
IL-17D (Q8TAD2)	42.52	56.20	30.59	11.57	41.23	92.19	22.60	24.70
IL-18 (Q14116)	29.12	0.00	25.65	13.16	24.32	26.92	19.76	1.85
IL-1ra (P18510)	27.15	100.00	15.19	15.31	22.98	99.23	7.55	2.07
IL-27 (Q8NEV9)	48.90	17.77	23.61	44.29	47.21	79.29	15.81	55.93
IL-4RA (P24394)	75.27	40.02	32.58	31.14	77.22	73.92	15.60	3.15
IL16 (Q14005)	50.79	92.80	15.62	23.43	49.92	81.52	7.34	0.96
IL1RL2 (Q9HB29)	1.61	0.00	16.69	21.97	4.68	46.09	15.90	22.87
ITGB1BP2 (Q9UKP3)	10.27	33.65	18.32	24.90	4.30	11.65	5.23	23.57
KIM1 (Q96D42)	61.03	98.58	19.30	4.52	62.08	77.62	10.00	28.07
LEP (P41159)	12.84	52.01	23.79	4.67	21.97	2.37	14.50	9.50
LOX-1 (P78380)	15.21	7.32	18.64	33.78	10.24	2.23	9.74	22.70
LPL (P06858)	55.25	99.94	34.02	25.21	56.42	88.77	31.35	69.38
MARCO (Q9UEW3)	4.44	85.71	45.36	18.36	3.31	97.63	49.15	36.89
MERTK (Q12866)	47.87	0.00	15.69	8.46	47.26	22.87	10.74	32.42
MMP-12 (P39900)	33.29	93.09	23.85	13.26	29.95	93.51	22.61	54.59

MMP-7 (P09237)	28.51	11.10	18.86	8.26	25.59	0.00	11.28	3.78
NEMO (Q9Y6K9)	13.19	34.59	23.50	25.16	7.45	97.07	16.83	34.02
PAPPA (Q13219)	48.80	61.87	25.06	34.79	47.64	46.65	21.60	4.95
PAR-1 (P25116)	70.42	68.60	27.01	30.65	72.76	11.37	17.00	31.07
PARP-1 (P09874)	21.55	50.24	16.37	25.52	16.23	3.14	6.42	12.22
PD-L2 (Q9BQ51)	62.94	80.58	19.54	12.77	63.23	59.27	7.38	27.80
PDGF subunit B (P01127)	14.38	68.36	29.72	47.65	23.10	16.67	20.67	18.77
PGF (P49763)	58.57	100.00	22.44	25.54	59.02	100.00	22.97	12.67
PIgR (P01833)	39.18	0.00	38.27	28.20	37.91	89.68	41.25	1.53
PRELP (P51888)	72.86	100.00	32.98	12.12	75.49	100.00	24.81	0.72
PRSS27 (Q9BQR3)	30.32	0.00	27.12	7.45	27.96	8.30	12.92	57.19
PRSS8 (Q16651)	48.94	31.88	25.37	3.94	49.01	13.95	21.12	57.94
PSGL-1 (Q14242)	29.87	97.52	33.29	0.38	42.55	94.63	22.42	32.44
PTX3 (P26022)	45.61	97.58	17.52	12.00	44.75	100.00	17.19	13.76
RAGE (Q15109)	61.96	68.60	32.95	35.13	63.59	88.15	36.58	23.15
REN (P00797)	47.31	76.51	28.98	2.44	46.89	63.32	21.10	81.45
SERPINA12 (Q8IW75)	12.81	11.75	27.32	10.62	7.68	85.77	16.20	8.05
SLAMF7 (Q9NQ25)	43.96	16.23	29.05	60.96	41.35	14.30	24.26	5.52
SOD2 (P04179)	13.97	10.33	22.82	14.13	22.86	39.33	10.48	36.83
SORT1 (Q99523)	10.11	59.15	13.41	21.45	4.39	46.86	9.23	43.89
SPON2 (Q9BUD6)	74.93	100.00	25.03	35.53	78.18	100.00	22.35	22.57
SRC (P12931)	10.99	54.07	20.01	59.03	19.75	0.00	9.88	32.43
STK4 (Q13043)	0.41	37.84	16.46	8.67	7.00	8.23	9.38	3.55
TF (P13726)	60.84	7.20	24.87	4.88	62.53	3.49	15.70	25.79
TGM2 (P21980)	16.17	86.60	22.46	42.45	25.76	97.21	17.55	46.26
THBS2 (P35442)	28.78	90.20	35.68	0.28	24.12	99.93	37.02	9.36
THPO (P40225)	32.62	93.62	19.85	20.60	30.85	90.66	13.75	27.02
TIE2 (Q02763)	8.53	84.89	17.32	4.77	2.21	70.43	13.56	45.37
TM (P07204)	59.78	95.69	16.94	7.41	59.52	6.69	11.17	3.25
TNFRSF10A (O00220)	78.48	75.38	23.22	20.48	80.81	31.45	18.78	27.68
TNFRSF11A (Q9Y6Q6)	75.75	0.00	16.46	13.46	78.70	0.00	11.61	11.69
TNFRSF13B (O14836)	44.08	48.41	23.16	18.61	41.44	3.77	13.39	22.90
TRAIL-R2 (O14763)	94.79	20.90	100.00	6.17	100.00	84.73	94.02	25.60
VEGFD (O43915)	17.23	0.00	22.71	56.63	12.98	49.86	19.91	15.40
VSIG2 (Q96IQ7)	68.98	77.63	43.55	9.50	71.47	66.67	31.11	8.50

XCL1 (P47992)	30.34	64.64	22.32	10.76	26.01	81.03	17.25	51.59
ALCAM (Q13740)	40.47	0.00	23.01	8.99	35.86	24.55	8.81	12.05
AP-N (P15144)	23.48	76.92	15.78	27.52	19.09	3.56	11.11	2.88
AXL (P30530)	52.69	59.15	17.85	48.20	47.42	1.81	4.62	0.17
AZU1 (P20160)	18.99	11.10	16.11	4.35	18.00	2.93	1.76	8.22
BLM hydrolase (Q13867)	16.62	81.58	15.90	24.91	16.48	93.38	3.63	27.02
CASP-3 (P42574)	5.95	53.36	19.74	23.77	9.91	23.85	9.51	31.46
CCL15 (Q16663)	55.89	0.00	17.43	0.85	52.61	16.18	6.06	7.26
CCL16 (O15467)	17.65	7.08	20.96	25.39	17.20	40.03	10.10	20.45
CCL22 (O00626)	24.35	12.57	27.99	12.16	24.29	2.65	20.77	39.81
CCL24 (O00175)	7.30	26.98	30.98	38.39	7.18	1.88	17.97	0.55
CD163 (Q86VB7)	53.23	45.45	26.72	26.27	46.72	0.00	16.92	31.96
CD93 (Q9NPY3)	50.32	5.08	18.03	4.33	45.19	12.41	4.94	14.92
CDH5 (P33151)	24.25	21.78	15.44	26.73	18.16	10.95	5.60	23.67
CHI3L1 (P36222)	58.15	82.53	18.79	25.76	54.36	13.88	9.00	35.02
CHIT1 (Q13231)	28.26	78.87	20.00	48.22	27.70	86.40	13.13	39.85
CNTN1 (Q12860)	12.88	74.79	26.23	49.64	6.87	79.36	16.80	0.05
COL1A1 (P02452)	40.32	11.45	23.16	5.46	31.30	57.67	18.79	19.81
CPA1 (P15085)	20.06	70.07	22.39	27.64	14.69	97.42	16.81	11.12
CPB1 (P15086)	17.72	98.52	16.92	0.58	13.34	29.85	9.36	6.76
CSTB (P04080)	77.51	13.46	20.92	25.39	75.60	0.00	12.75	17.84
CTSD (P07339)	46.20	29.28	17.75	3.37	45.33	5.02	11.72	13.93
CTSZ (Q9UBR2)	47.09	41.50	19.18	14.06	42.47	2.44	10.68	27.01
CXCL16 (Q9H2A7)	57.85	23.02	17.79	0.71	55.03	70.01	12.09	10.66
DLK-1 (P80370)	56.04	33.59	17.63	29.53	51.03	3.63	9.20	15.61
EGFR (P00533)	10.99	29.10	18.79	8.86	13.56	38.91	12.04	5.50
Ep-CAM (P16422)	21.69	52.18	16.02	8.11	19.18	70.01	16.99	7.48
EPHB4 (P54760)	65.93	55.55	18.47	9.09	61.67	13.39	4.11	0.90
FABP4 (P15090)	65.94	84.42	15.95	21.59	63.11	8.72	9.16	38.49
FAS (P25445)	49.89	26.33	17.16	45.56	47.07	0.00	5.17	5.54
Gal-3 (P17931)	36.86	11.16	20.91	30.07	35.43	62.41	7.24	41.98
Gal-4 (P56470)	51.77	60.51	19.48	2.48	50.17	0.00	6.67	4.12
GDF-15 (Q99988)	88.71	16.88	51.76	23.22	82.71	61.09	31.00	2.22
GRN (P28799)	45.60	0.00	20.36	30.32	38.99	23.01	7.12	13.45
ICAM-2 (P13598)	43.53	65.23	17.62	11.24	35.96	7.88	4.13	25.25

IGFBP-1 (P08833)	81.49	63.64	39.72	29.99	74.79	81.24	41.91	29.20
IGFBP-2 (P18065)	87.22	3.31	29.27	7.07	83.94	100.00	21.85	11.08
IGFBP-7 (Q16270)	60.24	63.81	22.56	34.90	53.53	17.99	12.69	13.70
IL-17RA (Q96F46)	22.95	39.55	22.72	6.57	20.65	46.37	19.18	39.30
IL-18BP (O95998)	63.02	62.28	23.08	4.34	57.74	57.32	7.72	28.21
IL-1RT1 (P14778)	56.50	5.02	20.42	1.73	52.57	3.70	7.37	18.03
IL-1RT2 (P27930)	7.72	91.56	31.59	46.85	4.52	3.97	12.34	0.41
IL-6RA (P08887)	8.36	38.19	26.94	5.19	9.06	0.00	12.87	16.89
IL2-RA (P01589)	65.55	0.00	20.89	2.13	61.97	63.88	8.56	23.49
ITGB2 (P05107)	14.96	0.00	18.09	34.11	12.24	99.65	13.77	20.01
JAM-A (Q9Y624)	34.42	0.00	12.51	7.14	28.89	16.95	9.42	16.67
KLK6 (Q92876)	31.08	27.15	14.05	11.23	26.78	23.22	0.00	66.46
LDL receptor (P01130)	12.05	0.00	22.44	17.88	10.73	46.79	11.53	27.71
LTBR (P36941)	75.78	28.51	34.41	10.72	70.33	96.51	10.65	21.34
MB (P02144)	53.30	8.09	24.42	74.11	50.68	12.27	15.11	37.34
MCP-1 (P13500)	30.62	13.99	13.74	6.13	25.97	21.69	9.71	48.05
MEPE (Q9NQ76)	29.51	22.31	14.55	0.38	26.01	10.95	7.84	3.67
MMP-2 (P08253)	50.28	66.47	24.49	23.32	42.02	36.54	6.84	26.75
MMP-3 (P08254)	53.06	67.12	22.12	8.33	48.82	52.30	13.11	9.49
MMP-9 (P14780)	8.11	26.68	15.50	15.67	9.45	3.77	10.40	14.75
MPO (P05164)	20.72	81.46	15.08	19.18	18.41	59.90	7.24	30.32
Notch 3 (Q9UM47)	41.25	72.90	16.86	39.43	34.20	6.83	9.55	25.27
NT-proBNP (NA)	100.00	88.49	90.28	51.76	95.58	100.00	97.11	63.42
OPG (O00300)	61.64	0.00	39.76	28.83	58.92	21.48	25.42	43.20
OPN (P10451)	78.49	100.00	25.35	100.00	73.49	95.68	17.19	16.63
PAI (P05121)	19.10	0.00	17.45	24.16	15.29	0.00	6.94	19.63
PCSK9 (Q8NBP7)	1.86	86.54	21.99	24.76	0.16	98.68	12.76	23.00
PDGF subunit A (P04085)	14.30	4.90	19.46	10.06	15.08	17.15	7.39	14.94
PECAM-1 (P16284)	14.28	68.60	19.03	13.50	7.10	95.47	17.73	43.73
PGLYRP1 (O75594)	37.03	81.29	21.51	7.24	35.69	10.32	5.19	2.99
PI3 (P19957)	54.61	0.00	15.28	1.91	49.16	60.04	3.77	24.26
PLC (P98160)	69.55	80.34	18.37	37.61	62.85	49.16	7.04	22.69
PON3 (Q15166)	18.66	26.51	22.54	30.66	15.85	3.49	11.04	22.97
PRTN3 (P24158)	29.68	81.76	12.76	50.68	29.60	77.82	9.47	32.79
PSP-D (P35247)	12.53	0.00	18.51	45.50	11.99	11.37	8.61	9.27

RARRES2 (Q99969)	10.79	80.46	20.07	6.39	10.25	3.63	8.95	19.28
RETN (Q9HD89)	50.38	17.71	18.66	8.19	47.45	2.86	7.00	10.80
SCGB3A2 (Q96PL1)	70.01	48.70	29.82	3.07	66.98	43.10	25.20	34.71
SELE (P16581)	5.09	53.13	22.70	5.54	1.67	92.12	16.14	70.63
SELP (P16109)	4.12	9.33	19.29	0.26	2.24	6.83	9.18	28.61
SHPS-1 (P78324)	58.22	8.74	19.98	12.01	52.16	46.65	5.06	4.68
SPON1 (Q9HCB6)	64.82	99.70	23.90	16.71	59.28	0.00	11.88	9.36
ST2 (Q01638)	87.84	100.00	70.67	82.33	79.42	100.00	62.81	68.47
t-PA (P00750)	15.74	49.53	19.84	15.73	9.61	77.13	16.55	42.92
TFF3 (Q07654)	92.32	100.00	44.69	17.62	88.04	100.00	37.70	29.17
TFPI (P10646)	23.30	27.86	16.33	0.87	22.96	61.85	2.69	21.00
TIMP4 (Q99727)	48.05	62.22	21.08	19.11	45.76	67.22	6.73	42.48
TLT-2 (Q5T2D2)	24.17	80.40	22.03	33.76	22.20	9.48	9.31	19.13
TNF-R1 (P19438)	80.01	79.57	29.43	11.06	74.30	18.41	15.75	41.52
TNF-R2 (P20333)	81.09	0.00	23.96	58.14	75.48	64.50	6.71	15.00
TNFRSF10C (O14798)	40.17	38.61	17.14	50.52	39.02	83.19	6.34	15.10
TNFRSF14 (Q92956)	76.45	0.00	26.63	0.84	72.08	22.32	13.25	3.09
TNFRSF13B (Q9Y275)	41.56	83.53	27.96	8.32	38.56	77.20	12.49	21.29
TR-AP (P13686)	3.44	61.69	24.82	4.28	4.68	36.40	9.89	59.15
TR (P02786)	46.37	11.45	26.74	8.86	41.28	35.15	20.53	8.79
U-PAR (Q03405)	82.58	6.14	26.13	20.76	77.11	14.64	10.64	8.08
uPA (P00749)	24.63	0.00	24.52	11.13	18.49	59.76	11.64	2.58
vWF (P04275)	4.06	0.00	17.68	7.43	4.09	9.07	7.38	13.17
ARNT (P27540)	17.96	41.09	28.83	17.50	11.80	35.15	19.34	12.50
BACH1 (O14867)	25.12	93.15	14.13	23.07	20.74	99.58	4.68	12.44
BIRC2 (Q13490)	18.91	3.01	14.70	19.96	14.54	12.06	9.38	12.29
BTN3A2 (P78410)	72.44	77.45	51.59	23.86	73.84	84.59	46.91	26.60
CCL11 (P51671)	18.39	24.26	18.43	20.61	13.42	9.55	11.19	17.98
CD28 (P10747)	34.35	89.85	23.55	36.13	30.95	86.47	14.80	37.44
CD83 (Q01151)	42.89	74.20	16.07	19.83	41.32	45.54	12.25	23.50
CDSN (Q15517)	56.32	9.09	20.82	26.52	56.20	69.32	19.00	1.40
CKAP4 (Q07065)	83.56	83.77	41.28	57.42	87.23	54.39	32.69	9.80
CLEC4A (Q9UMR7)	6.88	59.39	31.39	17.39	15.18	79.01	28.53	13.89
CLEC4C (Q8WTT0)	38.03	90.32	39.63	14.88	50.42	96.72	43.16	0.24
CLEC4D (Q8WXI8)	60.72	39.85	17.14	11.70	61.82	48.33	12.79	48.74

CLEC4G (Q6UXB4)	27.45	56.02	31.63	16.02	23.91	88.84	20.82	31.16
CLEC6A (Q6EIG7)	50.20	63.93	19.17	19.26	49.54	98.68	16.81	7.36
CLEC7A (Q9BXN2)	59.25	75.68	24.54	8.83	59.51	100.00	17.21	52.26
CNTNAP2 (Q9UHC6)	34.88	87.07	22.42	33.36	30.50	22.04	7.11	0.89
CXADR (P78310)	72.21	16.17	34.54	10.61	72.84	18.76	36.94	18.22
CXCL12 (P48061)	28.74	87.49	23.45	18.19	24.62	15.27	6.96	25.03
DAPP1 (Q9UN19)	0.25	21.37	15.51	13.90	7.52	58.44	4.66	19.55
DCBLD2 (Q96PD2)	44.54	52.07	22.44	29.46	42.10	47.42	17.80	31.38
DCTN1 (Q14203)	12.37	73.55	13.90	33.68	5.63	69.11	5.07	63.16
DDX58 (O95786)	1.57	0.00	17.18	2.48	9.46	1.53	4.27	26.49
DFFA (O00273)	25.78	0.00	15.48	11.51	21.71	0.00	9.57	2.75
DGKZ (Q13574)	10.26	87.43	30.31	35.71	3.94	95.68	29.51	66.30
DPP10 (Q8N608)	29.98	29.81	21.43	18.59	24.84	9.00	14.88	39.68
EDAR (Q9UNE0)	32.10	63.75	24.23	15.63	28.79	33.05	9.06	5.25
EGLN1 (Q9GZT9)	31.91	0.00	16.38	66.67	29.03	7.39	7.27	18.09
EIF4G1 (Q04637)	19.71	0.00	18.42	50.42	14.47	19.53	5.45	9.71
EIF5A (P63241)	20.29	98.88	17.83	16.93	13.88	99.16	12.37	31.38
FAM3B (P58499)	50.12	99.29	15.71	42.71	49.67	6.14	19.42	7.49
FCRL3 (Q96P31)	12.18	76.15	20.55	44.93	4.85	95.61	12.25	30.78
FCRL6 (Q6DN72)	31.07	0.00	28.45	37.57	26.51	17.09	17.07	29.79
FGF2 (P09038)	7.42	52.01	16.54	30.41	0.35	8.02	5.04	2.31
FXYD5 (Q96DB9)	12.47	28.10	23.18	48.84	6.63	1.81	9.13	8.60
GALNT3 (Q14435)	41.18	38.78	26.94	12.50	37.97	28.73	18.78	58.56
GLB1 (P16278)	1.51	0.00	24.11	17.63	6.89	64.78	16.44	8.86
HCLS1 (P14317)	14.18	69.54	16.95	6.08	8.41	0.00	10.21	9.93
HEXIM1 (O94992)	24.66	10.74	18.49	26.41	20.21	6.28	1.33	6.82
HNMT (P50135)	51.44	34.36	20.52	26.86	50.08	74.20	10.84	38.16
HSD11B1 (P28845)	20.30	57.67	21.22	1.59	14.07	57.67	14.65	51.25
ICA1 (Q05084)	9.94	11.98	17.82	24.85	3.24	13.46	5.90	2.87
IFNLR1 (Q8IU57)	13.49	86.42	27.44	30.97	7.49	77.41	16.74	1.80
IL10 (P22301)	48.04	79.40	29.68	7.17	47.45	92.61	22.27	61.12
IL12RB1 (P42701)	49.71	0.00	21.93	22.47	48.19	49.23	12.00	13.30
IL5 (P05113)	4.37	97.40	30.50	26.52	3.41	86.05	5.18	25.38
IRAK1 (P51617)	36.97	0.00	19.15	29.72	34.97	81.94	8.25	19.93
IRAK4 (Q9NWZ3)	3.83	12.75	10.11	9.04	3.33	1.88	3.96	4.47

IRF9 (Q00978)	9.47	0.00	22.17	9.67	3.21	72.87	20.17	7.15
ITGA11 (Q9UKX5)	11.58	24.32	32.22	60.87	21.35	43.79	20.82	34.36
ITGA6 (P23229)	1.65	99.00	27.63	37.09	5.48	80.06	15.11	15.33
ITGB6 (P18564)	41.86	84.47	28.96	8.48	38.43	62.20	28.43	24.92
ITM2A (O43736)	45.24	18.24	23.78	10.05	42.14	65.90	23.91	19.34
JUN (P05412)	13.95	26.92	26.78	53.25	8.71	99.51	20.74	26.41
KLRD1 (Q13241)	32.91	74.03	33.77	2.83	28.38	97.84	30.71	24.16
KPNA1 (P52294)	15.00	40.50	18.02	2.66	8.75	5.72	4.18	57.37
KRT19 (P08727)	75.39	100.00	95.41	63.78	78.05	100.00	89.39	0.06
LAG3 (P18627)	35.67	36.89	18.38	18.32	31.19	45.68	12.02	15.42
LAMP3 (Q9UQV4)	56.27	5.84	22.54	44.43	54.64	58.02	10.36	36.23
LILRB4 (Q8NHJ6)	79.02	99.06	30.16	40.71	81.14	99.72	12.04	64.87
LY75 (O60449)	16.54	47.05	21.95	18.47	9.96	30.13	11.14	1.20
MASPI (P48740)	0.24	76.03	38.46	7.18	9.06	96.37	33.48	32.80
MGMT (P16455)	5.07	8.68	22.37	22.86	1.74	21.69	12.03	22.61
MILR1 (Q7Z6M3)	54.44	78.10	23.63	31.52	53.34	18.20	11.19	39.05
NCR1 (O76036)	46.28	6.14	18.21	5.44	45.34	39.61	13.16	8.10
NF2 (P35240)	3.65	5.43	18.17	17.21	12.21	0.00	8.74	11.08
NFATC3 (Q12968)	2.74	71.96	36.16	64.08	11.55	66.81	31.00	12.99
NTF4 (P34130)	2.45	52.72	18.21	59.08	9.88	64.71	12.61	41.36
PADI2 (Q9Y2J8)	31.02	91.32	13.36	14.64	27.02	87.59	11.10	29.15
PIK3AP1 (Q6ZUJ8)	0.01	100.00	32.08	2.41	7.88	99.79	37.06	28.27
PLXNA4 (Q9HCM2)	5.43	0.00	12.39	10.82	2.20	22.94	7.60	7.99
PPP1R9B (Q96SB3)	10.01	0.00	20.11	61.68	3.30	0.00	12.56	30.26
PRDX1 (Q06830)	11.21	0.00	24.87	55.99	5.68	79.29	14.54	39.14
PRDX3 (P30048)	11.27	0.00	18.81	12.57	4.60	1.46	7.09	16.39
PRDX5 (P30044)	9.33	5.37	17.83	9.47	2.92	17.57	8.08	20.19
PRKCQ (Q04759)	9.33	3.19	17.45	6.32	3.81	6.35	7.77	12.59
PSIP1 (O75475)	33.85	55.19	24.21	9.80	31.42	7.11	5.38	26.96
PTH1R (Q03431)	7.98	49.59	24.27	7.40	2.33	28.66	11.92	11.49
SH2B3 (Q9UQQ2)	9.06	0.00	15.67	14.58	2.44	17.36	10.27	38.71
SH2D1A (O60880)	17.86	95.16	22.95	6.36	11.52	64.44	9.91	57.37
SIT1 (Q9Y3P8)	29.21	78.75	35.14	33.83	42.34	86.82	19.05	14.95
SPRY2 (O43597)	14.60	8.68	18.12	35.85	8.03	21.55	5.42	16.81
SRPK2 (P78362)	13.90	0.00	15.80	13.46	7.86	10.88	2.32	8.59

STC1 (P52823)	50.34	0.00	27.67	56.08	47.99	95.19	15.40	50.34
TANK (Q92844)	12.80	3.48	15.89	23.40	6.92	3.35	4.63	31.41
TPSAB1 (Q15661)	22.07	0.00	22.12	18.78	16.24	1.95	21.94	5.43
TRAF2 (Q12933)	10.94	43.21	11.85	2.36	5.26	0.00	3.46	27.13
TREM1 (Q9NP99)	82.46	12.75	45.86	39.45	85.92	99.72	49.65	6.31
TRIM21 (P19474)	10.64	58.21	14.18	14.23	4.06	7.53	9.25	19.52
TRIM5 (Q9C035)	32.97	95.40	15.26	2.29	29.70	49.16	7.54	10.15
ZBTB16 (Q05516)	25.64	37.19	17.98	30.12	21.38	46.51	12.81	24.41
5-NT (P21589)	21.46	93.57	16.82	5.68	15.86	88.21	5.96	43.95
ABL1 (P00519)	56.17	42.50	19.01	41.75	54.97	82.71	7.09	31.24
ADAM-TS 15 (Q8TE58)	35.08	76.45	19.29	9.12	31.50	84.94	13.26	41.15
ADAM8 (P78325)	52.58	50.53	19.74	39.33	50.52	68.13	10.33	10.49
ANXA1 (P04083)	34.29	14.40	21.20	15.80	32.07	9.34	10.66	24.48
AREG (P15514)	89.87	75.50	78.83	10.37	93.35	99.93	80.99	28.79
CAIX (Q16790)	56.27	6.43	33.22	17.87	54.78	73.08	24.01	39.13
CD160 (O95971)	46.33	0.00	16.84	18.53	43.99	3.77	9.44	20.16
CD207 (Q9UJ71)	15.41	94.57	18.82	11.59	10.75	88.49	9.07	6.63
CD27 (P26842)	73.32	60.74	23.19	3.50	73.98	0.00	15.13	1.85
CD48 (P09326)	49.62	99.41	23.46	33.43	47.12	71.13	16.87	23.59
CD70 (P32970)	40.99	26.80	23.67	52.01	37.26	29.29	9.53	38.29
CDKN1A (P38936)	23.69	14.17	13.08	29.40	18.49	28.73	5.06	6.58
CEACAM1 (P13688)	10.32	80.46	25.23	15.21	4.84	84.10	20.38	13.21
CEACAM5 (P06731)	44.38	99.94	27.62	17.42	43.11	99.65	12.14	92.05
CPE (P16870)	24.46	21.84	21.54	48.93	20.57	91.00	14.61	44.75
CRNN (Q9UBG3)	19.23	5.02	21.74	37.94	12.94	67.92	18.55	6.92
CTSV (O60911)	30.17	32.47	32.92	2.65	43.45	97.98	35.89	22.44
CXCL13 (O43927)	50.27	100.00	32.14	1.66	49.61	98.33	20.35	7.80
CXL17 (Q6UXB2)	59.13	5.67	29.33	20.34	57.79	31.03	19.37	24.13
CYR61 (O00622)	40.24	97.05	23.74	5.33	37.94	20.99	19.26	1.03
DLL1 (O00548)	70.73	68.24	20.52	12.66	73.47	5.23	14.62	12.23
EGF (P01133)	7.36	95.45	30.85	20.61	16.11	100.00	34.73	16.97
EPHA2 (P29317)	88.07	61.51	50.43	44.89	90.79	89.61	72.27	26.70
ERBB2 (P04626)	7.44	21.66	26.15	39.21	15.70	37.87	12.75	19.45
ERBB3 (P21860)	10.43	3.84	13.75	36.91	5.08	62.48	11.01	7.77
ERBB4 (Q15303)	15.76	73.79	17.86	0.95	8.77	95.89	12.88	12.67

ESM-1 (Q9NQ30)	49.06	77.39	24.44	18.24	48.62	96.93	9.01	11.15
FADD (Q13158)	5.93	3.36	11.05	15.91	0.00	47.42	7.83	7.60
FASLG (P48023)	4.79	50.35	22.83	2.76	3.63	94.21	12.38	32.98
FCRLB (Q6BAA4)	54.27	100.00	45.14	57.18	53.32	100.00	50.11	1.55
FGF-BP1 (Q14512)	39.26	99.94	26.17	0.00	36.67	7.25	9.35	12.55
FR-alpha (P15328)	68.37	87.96	38.46	10.33	70.25	99.16	36.13	33.25
FR-gamma (P41439)	28.47	43.27	38.20	39.51	25.08	94.42	19.05	2.83
FURIN (P09958)	0.58	74.32	28.41	21.42	7.50	99.93	24.46	30.42
Gal-1 (P09382)	35.29	71.66	17.07	56.94	33.27	0.00	10.49	29.01
GPC1 (P35052)	61.52	24.91	23.83	60.25	62.38	0.00	14.22	67.49
GPNMB (Q14956)	52.36	6.14	18.27	49.09	50.17	73.29	12.75	9.06
GZMB (P10144)	8.38	74.50	21.17	9.50	0.41	27.48	7.40	7.39
GZMH (P20718)	22.05	84.95	21.49	55.31	15.69	51.12	9.07	4.00
HGF (P14210)	47.45	65.58	23.19	40.72	47.07	38.35	10.25	11.47
hK11 (Q9UBX7)	67.44	71.19	22.17	17.45	68.94	61.30	22.20	43.26
hK14 (Q9P0G3)	3.81	35.18	26.86	11.42	11.54	5.58	15.86	41.11
hK8 (O60259)	31.93	93.21	27.03	6.76	28.92	97.77	16.27	25.99
ICOSLG (O75144)	37.36	51.71	18.39	22.97	33.59	5.16	11.71	0.36
IFN-gamma-R1 (P15260)	82.32	95.57	40.77	39.45	84.42	1.46	30.74	31.93
IGF1R (P08069)	84.22	3.72	51.91	59.06	87.94	100.00	63.79	2.48
IL6 (P05231)	65.24	38.84	52.64	19.30	65.23	100.00	49.69	9.77
ITGAV (P06756)	24.65	28.16	24.69	15.56	20.72	64.44	14.76	41.62
ITGB5 (P18084)	47.43	77.10	20.45	58.66	44.72	19.04	7.48	24.74
KLK13 (Q9UKR3)	12.07	63.05	31.73	34.09	6.92	90.52	17.64	12.27
LY9 (Q9HBG7)	42.05	98.52	19.01	16.45	38.33	87.45	20.36	7.63
LYN (P07948)	1.16	53.13	11.35	15.47	7.00	0.00	8.04	0.00
LYPD3 (O95274)	13.56	4.55	29.48	10.61	22.80	86.96	26.07	22.23
MAD homolog 5 (Q99717)	25.07	95.04	31.79	20.48	37.57	84.59	26.47	57.10
MetAP 2 (P50579)	7.49	0.00	13.80	59.25	0.86	16.46	7.30	17.94
MIA (Q16674)	7.26	20.43	23.57	21.94	1.27	83.26	14.40	3.93
MIC-A/B (Q29983)	19.67	77.98	21.84	16.63	13.36	79.78	7.46	18.21
MK (P21741)	44.41	65.11	22.00	1.15	43.52	77.62	14.89	30.68
MSLN (Q13421)	67.80	100.00	31.17	23.21	67.91	100.00	28.52	31.24
MUC-16 (Q8WXI7)	52.15	94.33	16.57	2.87	50.79	8.93	13.10	61.26
PODXL (O00592)	19.12	0.00	16.18	21.04	14.48	52.86	11.96	13.21

PPY (P01298)	30.35	73.02	20.89	85.87	27.20	49.72	10.86	42.06
PVRL4 (Q96NY8)	72.93	100.00	42.08	27.93	74.84	20.01	47.36	15.07
RET (P07949)	5.40	41.09	26.47	21.68	14.42	64.09	21.25	55.41
RSPO3 (Q9BXY4)	80.58	14.34	47.47	5.92	84.50	12.69	27.77	40.71
S100A11 (P31949)	48.88	90.32	33.86	30.16	46.15	89.26	35.29	23.55
S100A4 (P26447)	11.40	58.50	21.25	24.19	19.91	84.52	13.52	25.08
SCAMP3 (O14828)	29.80	100.00	13.60	4.55	25.33	69.80	2.33	10.76
SCF (P21583)	0.00	10.45	19.74	19.35	6.70	34.45	13.47	48.57
SEZ6L (Q9BYH1)	57.04	22.02	29.06	12.88	57.41	20.22	22.69	18.50
SPARC (P09486)	4.28	5.61	22.80	16.34	12.10	10.32	10.47	15.70
SYND1 (P18827)	60.99	78.10	23.71	11.16	60.11	68.27	12.09	1.40
TCL1A (P56279)	27.65	45.40	30.16	39.26	40.23	100.00	30.10	8.38
TFPI-2 (P48307)	39.10	71.61	18.53	29.12	36.74	73.29	9.02	1.60
TGF-alpha (P01135)	77.18	0.00	35.66	39.04	78.37	30.26	22.99	1.58
TGFR-2 (P37173)	79.62	10.86	29.35	0.81	81.76	61.51	28.58	10.45
TLR3 (O15455)	4.98	0.00	23.28	6.30	14.38	68.20	15.11	5.46
TNFRSF19 (Q9NS68)	82.00	0.00	49.24	23.03	84.49	97.70	40.39	52.09
TNFRSF4 (P43489)	56.78	21.13	22.44	21.10	55.05	0.00	3.46	3.82
TNFRSF6B (O95407)	80.75	7.67	41.05	20.65	82.55	7.74	37.10	45.85
TNFSF13 (O75888)	86.34	100.00	75.44	1.92	91.02	100.00	78.40	43.39
TRAIL (P50591)	30.27	0.00	33.04	10.91	41.43	79.92	15.10	12.95
TXLNA (P40222)	21.50	59.39	17.18	6.05	16.25	0.00	4.90	19.29
VEGFA (P15692)	79.40	29.81	34.97	38.58	82.69	44.63	33.73	54.91
VEGFR-2 (P35968)	16.46	86.30	27.42	3.46	25.62	75.10	16.98	6.28
VEGFR-3 (P35916)	12.36	34.77	20.29	48.07	6.91	86.12	6.02	36.98
VIM (P08670)	65.73	95.10	28.26	32.58	65.56	97.63	19.68	11.76
WFDC2 (Q14508)	93.57	100.00	55.35	31.12	99.05	100.00	56.45	5.94
WIF-1 (Q9Y5W5)	62.13	91.79	43.31	58.44	63.27	97.91	19.45	60.15
WISP-1 (O95388)	90.62	37.60	76.86	7.66	93.52	97.49	72.17	23.06
XPNPEP2 (O43895)	24.28	96.75	40.35	25.44	34.26	57.39	24.86	47.57

**Supplementary Table 8. Classification of All-cause mortality in Outpatients through Day 180: Comparison of variable importance derived by applying various classification methods on the training data. Within each column, variable importance results were scaled to a range of 0 (least important) to 100 (most important).**

Variable	Local, central, Singulex, and Olink data				Olink data only			
	ROC	C5.0	Random Forests	Neural Networks	ROC	C5.0	Random Forests	Neural Networks
Atrial fibrillation	26.57	0.00	1.28	25.44				
Age, years	61.21	0.00	44.38	43.26				
Albumin, g/L	15.17	13.75	24.21	20.23				
Body mass index, kg/m <sup>2</sup>	51.60	68.98	63.21	37.51				
CABG	27.92	0.00	4.89	43.73				
COPD	25.01	23.72	3.05	16.80				
Diastolic blood pressure	44.06	98.54	33.66	31.15				
Diabetes mellitus	1.09	0.00	2.94	62.33				
eGFR, mL/min/1.73m <sup>2</sup>	51.56	4.01	42.97	33.32				
HDL, mmol/L	31.89	0.00	51.63	7.64				
Hemoglobin, g/dL	73.98	73.84	47.18	100.00				
Heart rate, bpm	4.97	0.00	32.15	1.77				
Hypertension	33.28	0.00	5.37	26.35				
Ischemic heart disease	0.00	0.00	0.00	23.99				
LDL, mmol/L	39.99	100.00	72.86	32.14				
Aldosterone, pg/mL, log <sub>2</sub>	7.67	87.23	54.11	40.45				
Alkaline phosphatase, µg/L, log <sub>2</sub>	28.33	0.00	42.68	24.01				
ALT, U/L, log <sub>2</sub>	21.73	0.00	34.83	1.53				
AST, U/L, log <sub>2</sub>	8.99	0.00	68.61	7.48				
ET-1, pg/mL, log <sub>2</sub>	86.83	94.53	59.19	46.23				
Ferritin, µg/L, log <sub>2</sub>	9.73	86.62	100.00	21.15				
GGT, U/L, log <sub>2</sub>	18.85	0.00	32.61	47.21				
Glucose, mmol/L, log <sub>2</sub>	16.04	96.96	49.80	68.45				
Hepcidin, nmol/L, log <sub>2</sub>	5.39	100.00	78.55	12.97				
Serum iron, µmol/L, log <sub>2</sub>	51.50	93.55	41.90	20.08				
Phosphate, mmol/L, log <sub>2</sub>	0.90	95.01	32.45	11.16				
Platelet count, 10 <sup>9</sup> /L, log <sub>2</sub>	18.70	70.32	36.77	1.34				
pro-ENK, pmol/L, log <sub>2</sub>	66.21	0.00	40.85	51.05				
Total bilirubin, µmol/L, log <sub>2</sub>	4.40	10.46	37.24	45.52				
Triglycerides, mmol/L, log <sub>2</sub>	60.67	97.32	84.18	87.09				

Troponin I, pg/mL, log2	76.15	69.10	56.71	25.75				
Troponin T, pg/mL, log2	100.00	100.00	62.02	36.25				
Urea, mmol/L, log2	13.08	0.00	86.69	19.78				
White blood cell count, 10 <sup>9</sup> /L, log2	17.19	12.17	32.26	13.76				
LVEF, %	31.66	37.10	60.42	13.63				
Male sex	27.85	7.79	0.61	62.05				
Myocardial infarction	40.40	0.00	3.77	52.12				
Peripheral artery disease	31.70	37.35	3.45	2.76				
HF hospitalization in last year	35.22	34.91	6.44	59.34				
PCI	9.00	0.00	4.01	1.26				
Potassium, mmol/L	11.03	0.00	51.02	5.53				
Red blood cell count, 10 <sup>12</sup> /L	16.58	0.00	51.86	34.15				
Systolic blood pressure, mmHg	42.58	99.03	58.90	49.37				
Sodium, mmol/L	25.60	67.76	40.22	33.55				
Stroke	24.94	41.61	5.13	20.92				
Transferrin, g/L	19.22	0.00	25.97	30.32				
ACE2 (Q9BYF1)	15.61	0.00	25.52	5.55	1.85	38.27	36.74	2.64
ADAM-TS13 (Q76LX8)	3.02	0.00	33.06	25.79	32.48	99.83	39.01	6.63
ADM (P35318)	37.90	0.00	28.78	29.68	43.20	0.00	55.53	3.72
AGRP (O00253)	32.12	0.00	17.61	10.05	33.19	0.00	4.50	4.94
AMBP (P02760)	26.37	0.00	32.22	17.41	22.88	0.00	34.70	49.28
ANG-1 (Q15389)	24.94	0.00	23.85	36.27	20.07	0.00	21.80	27.78
BMP-6 (P22004)	21.55	0.00	27.27	18.28	12.81	0.00	15.75	39.39
BNP (P16860)	50.64	75.43	21.17	32.62	67.00	100.00	4.24	26.22
BOC (Q9BWV1)	21.25	0.00	27.58	15.13	12.84	45.24	20.26	9.69
CA5A (P35218)	9.84	0.00	29.75	27.37	45.44	0.00	38.17	75.17
CCL17 (Q92583)	30.05	0.00	26.78	9.69	29.77	0.00	3.74	36.93
CCL3 (P10147)	42.63	0.00	23.98	25.22	52.40	2.21	7.17	49.39
CD40-L (P29965)	20.55	0.00	16.40	17.05	11.61	0.00	6.02	42.19
CD4 (P01730)	32.95	62.17	21.69	6.95	34.45	21.94	9.06	38.45
CD84 (Q9UIB8)	24.22	94.89	55.86	24.16	18.18	61.39	53.46	14.76
CEACAM8 (P31997)	35.79	0.00	25.56	6.13	39.78	88.61	11.60	27.05
CTRC (Q99895)	1.93	0.00	49.97	24.49	30.51	0.00	47.59	28.10
CTSL1 (P07711)	26.98	4.26	42.87	18.71	23.40	100.00	54.19	2.49
CXCL1 (P09341)	41.75	41.61	21.82	17.48	51.00	56.80	36.52	48.64

DCN (P07585)	31.73	0.00	17.18	18.89	32.48	0.00	11.45	22.47
DECR1 (Q16698)	25.89	0.00	29.46	13.03	21.40	54.42	27.70	11.03
Dkk-1 (O94907)	18.80	0.00	19.02	26.40	8.96	0.00	14.40	24.51
FABP2 (P12104)	9.20	0.00	35.76	38.00	9.36	0.00	24.20	46.39
FGF-21 (Q9NSA1)	23.79	0.00	18.54	5.83	17.70	0.00	15.59	1.02
FGF-23 (Q9GZV9)	40.40	0.00	41.76	56.78	47.97	0.00	25.71	40.28
FS (P19883)	45.68	52.31	28.88	38.92	57.67	0.00	26.30	24.24
Gal-9 (O00182)	44.54	0.00	14.75	20.51	55.85	0.00	13.64	9.50
GDF-2 (Q9UK05)	12.59	66.06	40.68	15.91	50.22	90.99	39.79	26.00
GH (P01241)	41.14	0.00	33.57	31.02	49.66	0.00	17.14	17.26
GIF (P27352)	6.55	0.00	28.52	16.56	13.95	0.00	9.85	13.80
GLO1 (Q04760)	2.16	40.88	27.15	22.91	22.41	62.07	18.94	7.96
GT (P51161)	28.49	0.00	31.89	4.09	25.99	0.00	41.30	18.53
HAOX1 (Q9UJM8)	25.96	100.00	54.37	25.82	75.06	100.00	71.44	66.34
HB-EGF (Q99075)	14.53	0.00	19.75	1.52	0.74	77.38	15.86	14.59
HO-1 (P09601)	3.51	0.00	24.50	3.07	20.44	88.10	7.96	20.12
hOSCAR (Q8IYS5)	33.01	0.00	33.86	42.69	35.19	0.00	12.03	5.97
HSP 27 (P04792)	49.67	63.75	56.24	19.17	66.04	99.83	73.45	19.94
IDUA (P35475)	3.48	98.30	43.53	40.48	19.95	100.00	60.90	25.45
IgG Fc receptor II-b (P31994)	3.15	0.00	42.91	8.53	33.71	0.00	18.65	28.07
IL-17D (Q8TAD2)	18.99	0.00	31.36	12.14	9.08	0.00	7.82	30.48
IL-18 (Q14116)	17.31	7.66	19.00	0.29	6.50	90.31	25.09	10.35
IL-1ra (P18510)	23.56	100.00	32.96	43.94	16.35	100.00	14.03	21.73
IL-27 (Q8NEV9)	33.77	0.00	20.63	2.58	36.45	0.00	18.08	8.20
IL-4RA (P24394)	48.93	0.00	31.79	20.41	64.19	22.96	24.15	8.26
IL16 (Q14005)	14.02	0.00	12.37	1.89	0.49	0.00	10.92	10.78
IL1RL2 (Q9HB29)	10.24	60.22	17.34	8.90	46.06	32.48	27.74	6.14
ITGB1BP2 (Q9UKP3)	30.94	0.00	27.01	17.18	30.33	0.00	5.24	0.66
KIM1 (Q96D42)	17.70	0.00	29.11	19.35	6.13	77.38	31.10	40.25
LEP (P41159)	14.96	0.00	38.86	4.54	55.17	0.00	35.16	21.65
LOX-1 (P78380)	26.88	0.00	20.15	7.41	23.40	0.00	19.70	32.99
LPL (P06858)	1.47	76.52	34.74	7.66	30.26	48.47	19.05	18.00
MARCO (Q9UEW3)	10.57	0.00	24.42	65.83	46.27	91.84	20.18	52.88
MERTK (Q12866)	17.85	0.00	15.94	12.95	6.77	0.00	18.17	3.23
MMP-12 (P39900)	39.72	100.00	49.64	32.35	47.75	100.00	56.27	0.00

MMP-7 (P09237)	12.97	0.00	30.16	41.63	2.28	0.00	9.28	29.16
NEMO (Q9Y6K9)	21.07	78.83	29.11	13.65	12.38	0.00	14.33	18.33
PAPPA (Q13219)	28.07	33.45	18.75	49.18	26.12	0.00	26.18	0.46
PAR-1 (P25116)	33.08	0.00	29.75	32.40	34.61	0.00	16.35	72.83
PARP-1 (P09874)	15.25	34.43	26.96	4.42	1.11	93.71	18.10	25.40
PD-L2 (Q9BQ51)	43.42	0.00	16.34	4.94	54.50	0.00	13.09	48.78
PDGF subunit B (P01127)	16.70	0.00	40.44	14.70	5.39	25.85	29.32	10.64
PGF (P49763)	37.99	0.00	29.15	33.21	44.41	0.00	23.35	18.43
PIgR (P01833)	8.30	59.49	28.24	34.55	10.53	0.00	30.75	59.71
PRELP (P51888)	28.23	0.00	17.74	1.29	25.55	0.00	17.29	17.35
PRSS27 (Q9BQR3)	30.48	5.11	15.50	9.09	30.79	0.00	9.15	32.88
PRSS8 (Q16651)	28.33	0.00	27.72	15.60	26.08	0.00	12.30	30.66
PSGL-1 (Q14242)	23.11	0.00	48.14	18.63	70.41	0.00	57.56	46.30
PTX3 (P26022)	29.28	0.00	21.67	61.60	27.22	0.00	18.93	62.62
RAGE (Q15109)	14.02	0.00	31.10	35.56	0.55	8.84	21.54	15.72
REN (P00797)	31.29	0.00	43.76	18.14	31.99	0.00	43.77	53.34
SERPINA12 (Q8IW75)	10.58	65.94	37.23	25.45	6.13	95.07	46.08	12.32
SLAMF7 (Q9NQ25)	42.67	48.54	16.00	24.08	52.99	0.00	22.69	36.78
SOD2 (P04179)	1.17	8.27	30.88	4.45	28.68	57.48	15.47	24.26
SORT1 (Q99523)	2.03	0.00	29.71	14.54	31.13	34.86	33.57	58.52
SPON2 (Q9BUD6)	33.65	0.00	35.05	41.04	35.75	0.00	17.34	40.16
SRC (P12931)	38.31	65.45	23.11	8.03	44.24	0.00	22.25	34.62
STK4 (Q13043)	33.51	0.00	25.54	8.34	35.47	69.05	12.69	28.43
TF (P13726)	21.25	0.00	13.23	4.53	12.44	0.00	25.04	7.03
TGM2 (P21980)	2.66	0.00	22.26	18.14	31.65	0.00	6.08	31.20
THBS2 (P35442)	3.03	81.14	22.61	31.61	21.01	96.26	17.31	37.52
THPO (P40225)	15.71	0.00	22.01	7.61	2.62	0.00	11.87	21.85
TIE2 (Q02763)	4.61	0.00	26.50	9.41	17.83	0.00	17.66	28.00
TM (P07204)	17.55	0.00	21.77	19.66	6.28	0.00	20.11	18.14
TNFRSF10A (O00220)	38.06	0.00	21.87	42.81	44.00	0.00	14.73	25.07
TNFRSF11A (Q9Y6Q6)	39.31	0.00	16.92	3.57	46.52	0.00	12.12	29.96
TNFRSF13B (O14836)	28.67	0.00	16.45	26.24	27.19	0.00	8.22	20.45
TRAIL-R2 (O14763)	63.85	10.22	48.67	67.77	91.59	22.96	42.00	1.83
VEGFD (O43915)	39.99	90.02	44.48	28.43	48.11	99.15	53.89	67.78
VSIG2 (Q96IQ7)	26.15	0.00	28.43	36.50	22.31	0.00	22.52	4.28

XCL1 (P47992)	38.64	79.08	23.54	34.55	45.35	0.00	14.25	2.53
ALCAM (Q13740)	29.81	83.33	26.27	3.00	16.16	0.00	30.37	33.80
AP-N (P15144)	20.70	0.00	27.63	10.85	2.25	0.00	19.29	3.77
AXL (P30530)	29.53	41.24	27.83	5.75	19.77	0.00	17.59	25.35
AZU1 (P20160)	24.84	0.00	19.76	9.65	10.85	0.00	9.09	27.74
BLM hydrolase (Q13867)	16.40	0.00	16.93	30.06	10.10	0.00	12.00	38.11
CASP-3 (P42574)	26.04	0.00	37.32	14.32	8.28	64.12	26.40	23.41
CCL15 (Q16663)	32.45	0.00	23.00	43.37	24.14	0.00	24.29	12.25
CCL16 (O15467)	25.17	3.77	30.47	40.00	9.88	75.85	17.40	35.79
CCL22 (O00626)	3.68	3.53	16.36	34.63	22.26	0.00	6.75	5.71
CCL24 (O00175)	17.37	72.63	33.18	5.88	3.76	0.00	21.08	8.98
CD163 (Q86VB7)	33.19	0.00	25.78	3.29	24.23	0.00	0.80	11.63
CD93 (Q9NPY3)	34.21	0.00	31.79	45.40	23.40	0.00	13.70	20.33
CDH5 (P33151)	19.03	8.52	28.74	16.09	1.63	18.71	9.58	14.26
CHI3L1 (P36222)	63.40	0.00	22.36	0.64	70.32	77.72	18.83	7.31
CHIT1 (Q13231)	44.84	45.50	27.97	68.53	36.73	87.93	19.90	72.93
CNTN1 (Q12860)	10.27	71.05	29.66	53.97	12.96	100.00	51.38	27.16
COL1A1 (P02452)	27.06	0.00	14.79	0.88	19.92	0.00	11.08	61.11
CPA1 (P15085)	9.63	0.00	15.92	7.68	17.55	0.00	5.96	15.28
CPB1 (P15086)	12.37	54.74	24.62	10.74	13.98	0.00	8.90	18.98
CSTB (P04080)	61.00	0.00	20.99	13.33	68.75	0.00	1.14	38.24
CTSD (P07339)	41.35	16.55	24.45	33.73	34.21	0.00	32.01	13.11
CTSZ (Q9UBR2)	40.13	0.00	16.25	15.14	38.58	0.00	11.89	32.09
CXCL16 (Q9H2A7)	38.75	0.00	24.47	9.37	31.80	0.00	9.61	9.22
DLK-1 (P80370)	20.60	19.10	25.76	25.96	8.96	0.00	10.83	10.68
EGFR (P00533)	7.49	0.00	30.54	7.13	19.80	0.00	21.52	24.38
Ep-CAM (P16422)	0.58	21.05	36.70	38.02	29.74	37.59	18.15	69.90
EPHB4 (P54760)	51.40	0.00	18.72	2.23	52.77	0.00	14.48	18.82
FABP4 (P15090)	31.01	0.00	26.68	7.17	22.69	0.00	24.76	13.27
FAS (P25445)	26.83	7.18	19.99	3.83	12.22	0.00	8.96	3.66
Gal-3 (P17931)	28.46	0.00	27.70	10.99	10.47	0.00	15.11	32.36
Gal-4 (P56470)	27.67	0.00	23.80	15.83	12.25	0.00	20.92	55.54
GDF-15 (Q99988)	49.51	0.00	20.71	22.32	50.37	0.00	5.02	48.34
GRN (P28799)	22.03	0.00	19.30	38.47	7.57	0.00	5.59	1.21
ICAM-2 (P13598)	35.79	0.00	16.64	19.35	28.69	0.00	16.94	35.29

IGFBP-1 (P08833)	65.06	91.48	31.35	11.81	73.71	0.00	14.64	33.92
IGFBP-2 (P18065)	74.78	0.00	43.58	39.43	91.59	95.92	37.85	24.60
IGFBP-7 (Q16270)	34.71	0.00	25.50	2.53	27.77	0.00	20.03	3.56
IL-17RA (Q96F46)	21.68	25.67	19.53	2.16	5.30	0.00	9.96	18.82
IL-18BP (O95998)	49.49	0.00	19.33	5.51	50.80	0.00	8.23	26.41
IL-1RT1 (P14778)	51.09	0.00	17.58	9.60	52.56	0.00	18.98	7.03
IL-1RT2 (P27930)	18.90	0.00	31.39	10.28	0.12	19.56	25.55	4.78
IL-6RA (P08887)	7.19	0.00	21.59	10.54	16.47	0.00	21.21	32.27
IL2-RA (P01589)	50.20	0.00	31.38	16.16	54.77	0.00	27.20	5.39
ITGB2 (P05107)	8.94	0.00	20.94	26.01	15.46	0.00	24.85	6.35
JAM-A (Q9Y624)	30.15	0.00	26.61	22.71	22.78	13.27	3.18	11.55
KLK6 (Q92876)	38.85	0.00	23.36	4.97	28.33	0.00	16.22	5.08
LDL receptor (P01130)	7.65	0.00	30.47	0.25	47.23	11.22	31.78	5.28
LTBR (P36941)	48.73	0.00	24.74	3.41	49.14	0.00	13.99	25.36
MB (P02144)	25.78	0.00	18.62	25.92	11.30	0.00	3.47	34.78
MCP-1 (P13500)	34.20	0.00	19.25	24.91	24.35	0.00	14.50	33.88
MEPE (Q9NQ76)	34.85	98.42	22.07	18.61	27.40	97.96	10.46	10.89
MMP-2 (P08253)	44.16	0.00	35.82	11.46	41.56	0.00	27.10	17.74
MMP-3 (P08254)	41.76	0.00	21.78	41.53	34.14	0.00	6.20	26.55
MMP-9 (P14780)	29.23	0.00	28.32	18.30	14.75	2.72	27.64	27.83
MPO (P05164)	30.58	0.00	19.17	25.26	25.86	64.46	21.01	12.46
Notch 3 (Q9UM47)	42.81	0.00	43.93	11.02	40.79	99.83	38.05	71.09
NT-proBNP (NA)	76.13	0.00	31.93	3.61	94.18	0.00	16.39	69.13
OPG (O00300)	48.52	0.00	25.26	4.54	49.78	0.00	17.91	4.34
OPN (P10451)	71.11	0.00	32.83	4.55	89.22	96.77	35.33	40.72
PAI (P05121)	13.39	31.27	23.44	35.25	8.56	0.00	9.68	53.43
PCSK9 (Q8NBP7)	36.37	0.00	15.99	44.15	24.32	0.00	11.92	40.49
PDGF subunit A (P04085)	17.06	0.00	20.61	8.55	3.54	0.00	20.42	12.66
PECAM-1 (P16284)	17.04	93.80	34.05	2.73	0.51	0.00	28.52	12.61
PGLYRP1 (O75594)	53.70	0.00	25.28	7.20	60.81	0.00	32.62	18.39
PI3 (P19957)	46.67	96.72	51.73	18.60	41.32	100.00	24.42	22.95
PLC (P98160)	40.22	0.00	32.63	18.22	36.64	0.00	7.85	44.92
PON3 (Q15166)	8.07	0.00	28.19	2.60	24.85	0.00	20.27	6.89
PRTN3 (P24158)	34.07	0.00	17.98	10.06	30.36	0.00	1.27	38.88
PSP-D (P35247)	60.88	26.16	36.02	28.02	66.06	0.00	26.23	52.25

RARRES2 (Q99969)	26.02	0.00	27.05	4.93	13.55	0.00	13.19	5.39
RETN (Q9HD89)	51.35	0.00	28.45	23.54	56.43	17.35	17.20	27.07
SCGB3A2 (Q96PL1)	69.88	97.57	36.21	34.09	87.96	100.00	51.15	38.40
SELE (P16581)	28.47	50.49	28.58	14.10	18.97	0.00	15.34	19.51
SELP (P16109)	19.92	0.00	22.47	0.80	2.83	0.00	19.66	15.32
SHPS-1 (P78324)	60.97	55.23	31.36	22.56	74.05	45.92	18.25	60.10
SPON1 (Q9HCB6)	44.26	0.00	27.70	3.66	44.44	0.00	12.87	9.51
ST2 (Q01638)	53.95	0.00	22.54	26.53	57.91	0.00	18.40	38.25
t-PA (P00750)	13.54	0.00	12.10	31.84	8.68	0.00	6.37	15.51
TFF3 (Q07654)	52.15	0.00	39.59	10.68	53.02	34.86	26.24	0.33
TFPI (P10646)	19.02	0.00	27.09	11.38	5.79	66.84	26.06	5.31
TIMP4 (Q99727)	44.66	0.00	17.10	10.61	40.61	0.00	15.50	42.00
TLT-2 (Q5T2D2)	20.73	0.00	18.21	13.24	6.47	0.00	16.28	24.39
TNF-R1 (P19438)	55.20	0.00	34.67	6.82	60.19	0.00	18.60	29.98
TNF-R2 (P20333)	60.72	29.32	20.99	23.07	67.83	0.00	9.15	19.14
TNFRSF10C (O14798)	54.69	0.00	20.45	22.82	58.96	0.00	30.90	34.78
TNFRSF14 (Q92956)	47.16	0.00	23.05	0.15	48.34	0.00	16.84	10.51
TNFSF13B (Q9Y275)	52.29	0.00	27.26	36.27	55.20	0.00	13.44	1.38
TR-AP (P13686)	3.35	0.00	25.55	4.73	33.65	79.59	39.30	58.94
TR (P02786)	35.33	100.00	34.17	38.64	29.71	100.00	44.55	12.07
U-PAR (Q03405)	68.43	0.00	26.87	24.58	82.82	0.00	25.27	7.36
uPA (P00749)	11.36	0.00	12.63	15.57	10.84	0.00	15.09	12.88
vWF (P04275)	12.29	100.00	37.23	21.39	11.92	0.00	45.50	23.04
ARNT (P27540)	17.39	57.42	39.02	8.85	60.50	61.73	21.71	48.60
BACH1 (O14867)	16.66	0.00	34.24	17.73	4.36	0.00	16.79	3.09
BIRC2 (Q13490)	18.77	0.00	38.98	9.65	8.37	0.00	24.40	17.80
BTN3A2 (P78410)	33.00	0.00	24.65	14.57	34.85	0.00	19.95	12.88
CCL11 (P51671)	0.78	0.00	32.38	13.49	24.72	44.22	22.54	22.64
CD28 (P10747)	5.65	0.00	22.91	19.10	37.38	42.69	20.11	24.14
CD83 (Q01151)	16.16	0.00	20.80	23.94	3.73	0.00	9.51	1.73
CDSN (Q15517)	40.15	0.00	25.58	1.21	47.84	12.41	8.59	27.96
CKAP4 (Q07065)	42.25	0.00	21.73	7.27	51.75	0.00	27.13	11.29
CLEC4A (Q9UMR7)	6.81	27.62	18.58	17.68	39.98	0.00	31.57	19.82
CLEC4C (Q8WTT0)	23.03	0.00	23.42	31.48	70.14	87.41	30.81	10.16
CLEC4D (Q8WXI8)	39.77	0.00	24.15	66.03	47.41	100.00	27.44	40.17

CLEC4G (Q6UXB4)	0.07	0.00	19.30	4.54	25.86	0.00	28.13	7.12
CLEC6A (Q6EIG7)	23.47	0.00	29.82	0.61	17.18	0.00	44.94	47.67
CLEC7A (Q9BXN2)	29.31	0.00	34.80	6.35	28.08	0.00	25.43	20.36
CNTNAP2 (Q9UHC6)	29.63	7.18	44.44	10.81	28.51	11.90	54.65	7.75
CXADR (P78310)	32.27	0.00	30.20	0.19	32.91	0.00	37.23	27.79
CXCL12 (P48061)	14.23	99.76	37.57	2.40	0.00	100.00	53.13	49.73
DAPP1 (Q9UN19)	21.57	0.00	22.29	0.99	13.55	0.00	7.74	15.43
DCBLD2 (Q96PD2)	22.87	0.00	19.33	0.61	16.56	0.00	5.34	14.97
DCTN1 (Q14203)	15.70	36.74	25.30	37.39	2.74	86.56	27.47	4.70
DDX58 (O95786)	6.17	26.52	22.12	35.58	15.21	24.15	15.54	43.53
DFFA (O00273)	10.48	0.00	14.56	21.48	6.99	0.00	8.77	0.86
DGKZ (Q13574)	7.65	0.00	40.82	9.32	41.13	99.83	37.58	44.29
DPP10 (Q8N608)	6.32	0.00	40.36	39.84	14.69	0.00	31.63	20.13
EDAR (Q9UNE0)	8.63	0.00	17.89	0.72	10.68	0.00	15.79	48.50
EGLN1 (Q9GZT9)	27.27	74.45	49.78	2.56	24.20	27.38	34.60	9.89
EIF4G1 (Q04637)	20.74	0.00	21.49	9.07	11.92	0.00	19.23	1.54
EIF5A (P63241)	13.61	32.85	19.62	18.13	1.32	33.33	11.15	52.42
FAM3B (P58499)	10.40	0.00	28.08	35.09	6.96	48.30	19.05	56.60
FCRL3 (Q96P31)	29.13	56.33	33.95	7.31	28.39	0.00	37.80	100.00
FCRL6 (Q6DN72)	5.43	0.00	59.47	6.40	16.10	54.76	96.02	20.57
FGF2 (P09038)	28.11	0.00	24.90	10.62	25.58	0.00	21.26	1.83
FXYD5 (Q96DB9)	11.67	98.91	42.50	7.49	4.53	100.00	47.21	6.00
GALNT3 (Q14435)	5.19	76.40	39.87	11.50	36.45	99.83	38.44	23.95
GLB1 (P16278)	8.79	0.00	20.99	25.90	9.51	0.00	12.78	47.85
HCLS1 (P14317)	21.70	0.00	20.25	16.75	13.95	0.00	11.92	10.20
HEXIM1 (O94992)	12.77	37.35	25.29	21.01	2.80	0.00	23.30	29.40
HNMT (P50135)	4.37	0.00	20.61	0.18	18.66	0.00	30.56	16.90
HSD11B1 (P28845)	1.25	0.00	29.13	19.19	23.97	80.44	63.32	27.67
ICA1 (Q05084)	5.16	0.00	48.06	24.47	17.00	92.86	38.91	36.90
IFNLR1 (Q8IU57)	14.64	90.27	18.73	33.86	54.13	98.30	22.73	37.80
IL10 (P22301)	1.70	4.50	39.68	81.36	30.05	21.94	33.59	11.58
IL12RB1 (P42701)	22.55	0.00	20.32	1.14	15.61	0.00	14.15	19.31
IL5 (P05113)	13.87	0.00	42.43	10.35	0.12	23.30	24.00	10.88
IRAK1 (P51617)	14.23	0.00	22.30	10.50	0.28	0.00	0.66	0.07
IRAK4 (Q9NWZ3)	20.25	0.00	27.60	5.90	10.96	0.00	2.94	11.73

IRF9 (Q00978)	34.72	86.74	43.74	8.79	38.30	97.11	32.91	28.83
ITGA11 (Q9UKX5)	13.81	0.00	41.26	23.19	53.02	24.66	17.93	23.68
ITGA6 (P23229)	22.32	13.87	27.40	14.64	15.02	0.00	17.15	0.88
ITGB6 (P18564)	21.35	9.73	17.00	26.32	13.36	0.00	5.96	19.13
ITM2A (O43736)	29.76	0.00	26.72	8.99	28.69	0.00	12.68	74.16
JUN (P05412)	29.77	75.06	31.58	13.08	28.97	100.00	40.12	56.88
KLRD1 (Q13241)	14.74	0.00	6.41	33.93	1.51	0.00	9.67	68.97
KPNA1 (P52294)	0.38	0.00	22.20	15.83	26.37	0.00	15.60	14.36
KRT19 (P08727)	40.89	62.65	52.23	46.94	49.35	24.83	51.29	50.97
LAG3 (P18627)	21.42	70.92	15.37	13.21	12.68	0.00	20.98	29.13
LAMP3 (Q9UQV4)	47.88	0.00	24.50	23.43	62.72	0.00	25.31	1.93
LILRB4 (Q8NHJ6)	40.09	100.00	39.78	21.48	48.08	100.00	47.31	29.69
LY75 (O60449)	8.77	0.00	20.18	44.01	44.12	0.00	15.73	18.49
MASPI (P48740)	23.69	9.98	24.42	59.22	71.31	70.58	37.19	15.36
MGMT (P16455)	18.66	0.00	24.92	1.98	8.10	0.00	16.03	36.71
MILR1 (Q7Z6M3)	19.91	0.00	27.67	0.68	10.13	0.00	11.69	8.01
NCR1 (O76036)	4.63	85.28	19.98	12.13	18.01	44.73	29.43	16.06
NF2 (P35240)	15.63	0.00	18.45	4.31	2.59	0.00	17.81	5.09
NFATC3 (Q12968)	21.22	91.36	67.23	7.22	66.01	62.24	75.38	21.67
NTF4 (P34130)	1.97	67.76	30.27	42.44	21.98	0.00	14.58	46.59
PADI2 (Q9Y2J8)	21.58	5.47	23.15	9.14	13.33	0.00	10.33	39.18
PIK3AP1 (Q6ZUJ8)	7.56	51.22	31.18	32.77	41.13	83.67	10.53	49.68
PLXNA4 (Q9HCM2)	17.64	81.14	30.42	24.61	6.34	99.32	43.29	21.09
PPP1R9B (Q96SB3)	18.61	0.00	19.52	12.72	8.25	14.46	3.13	28.13
PRDX1 (Q06830)	1.95	0.00	25.95	19.60	22.69	48.13	28.04	0.29
PRDX3 (P30048)	21.73	0.00	39.59	23.83	14.07	0.00	58.61	46.12
PRDX5 (P30044)	30.18	0.00	25.61	19.29	29.36	95.41	19.15	9.55
PRKCQ (Q04759)	7.08	2.43	43.82	19.97	39.99	33.33	23.01	8.61
PSIP1 (O75475)	20.05	0.00	19.21	18.12	9.96	0.00	8.02	11.82
PTH1R (Q03431)	12.13	0.00	33.48	4.86	4.03	100.00	35.75	21.09
SH2B3 (Q9UQQ2)	15.99	0.00	27.23	3.84	2.89	0.00	11.38	2.89
SH2D1A (O60880)	3.79	0.00	19.99	5.51	19.61	0.00	21.26	6.62
SIT1 (Q9Y3P8)	2.46	0.00	38.70	18.74	31.31	0.00	57.72	14.51
SPRY2 (O43597)	19.10	0.00	18.44	3.22	8.74	0.00	9.51	4.57
SRPK2 (P78362)	13.02	0.00	35.13	1.33	2.19	0.00	12.68	3.97

STC1 (P52823)	24.07	0.00	21.33	48.95	18.84	0.00	11.73	2.73
TANK (Q92844)	20.24	0.00	25.78	38.33	11.58	0.00	14.68	46.15
TPSAB1 (Q15661)	8.21	96.11	47.49	9.88	10.84	65.48	52.61	9.81
TRAF2 (Q12933)	7.21	0.00	33.03	33.09	40.92	47.45	16.00	60.58
TREM1 (Q9NP99)	57.92	5.23	29.84	22.52	80.46	100.00	30.18	9.71
TRIM21 (P19474)	10.19	0.00	37.20	24.55	7.60	0.00	8.23	2.75
TRIM5 (Q9C035)	18.50	0.00	24.78	23.23	7.54	0.00	7.56	18.38
ZBTB16 (Q05516)	18.49	0.00	23.68	0.00	7.97	0.00	7.05	16.65
5-NT (P21589)	13.52	0.00	41.44	11.43	2.62	98.81	36.41	4.42
ABL1 (P00519)	33.09	95.50	23.08	8.38	33.47	53.91	9.26	9.94
ADAM-TS 15 (Q8TE58)	18.57	0.00	14.65	2.57	7.17	0.00	14.68	47.16
ADAM8 (P78325)	39.45	0.00	14.68	6.53	45.44	0.00	7.98	3.41
ANXA1 (P04083)	28.55	100.00	28.12	47.55	25.46	100.00	6.65	33.48
AREG (P15514)	58.36	93.92	35.75	35.83	80.60	0.00	29.18	33.53
CAIX (Q16790)	21.49	0.00	24.81	5.18	12.19	0.00	19.36	7.45
CD160 (O95971)	28.96	0.00	27.17	26.62	26.63	0.00	19.51	8.59
CD207 (Q9UJ71)	34.34	100.00	42.56	59.99	36.33	99.66	28.14	28.36
CD27 (P26842)	48.43	0.00	25.31	5.49	62.41	0.00	8.48	15.39
CD48 (P09326)	14.95	49.15	14.78	36.84	0.86	69.90	23.22	39.37
CD70 (P32970)	20.18	0.00	32.85	24.33	9.98	0.00	11.69	71.14
CDKN1A (P38936)	21.61	0.00	18.87	3.59	12.84	0.00	27.99	33.04
CEACAM1 (P13688)	5.69	0.00	54.68	8.62	38.24	97.45	51.69	18.68
CEACAM5 (P06731)	28.22	0.00	35.45	54.53	24.51	0.00	29.31	19.70
CPE (P16870)	8.93	81.14	34.54	33.78	10.34	50.85	36.55	0.87
CRNN (Q9UBG3)	13.06	0.00	19.47	10.18	2.83	0.00	7.10	3.99
CTSV (O60911)	12.32	0.00	22.82	37.96	50.18	5.78	15.48	36.04
CXCL13 (O43927)	66.22	82.48	73.55	12.39	95.84	57.48	89.99	34.63
CXL17 (Q6UXB2)	47.16	100.00	82.91	27.37	60.38	100.00	97.19	3.32
CYR61 (O00622)	2.34	50.97	16.89	6.52	22.84	5.78	13.65	18.00
DLL1 (O00548)	37.79	0.00	16.68	20.14	42.89	0.00	9.66	11.08
EGF (P01133)	25.23	0.00	16.86	20.92	19.58	33.33	11.75	8.37
EPHA2 (P29317)	53.37	89.29	28.75	26.95	71.23	0.00	39.89	52.07
ERBB2 (P04626)	11.07	42.82	37.92	3.90	48.40	0.00	24.50	5.80
ERBB3 (P21860)	8.06	0.00	19.48	2.07	42.76	20.24	29.73	15.69
ERBB4 (Q15303)	10.43	0.00	41.94	0.96	7.82	100.00	49.74	18.13

ESM-1 (Q9NQ30)	48.00	0.00	30.70	4.64	61.70	10.37	34.37	57.21
FADD (Q13158)	21.43	0.00	18.04	2.28	12.22	0.00	21.42	10.56
FASLG (P48023)	10.43	19.71	26.73	41.22	46.74	72.96	32.16	4.94
FCRLB (Q6BAA4)	34.78	44.04	31.03	5.74	37.81	22.11	49.69	0.55
FGF-BP1 (Q14512)	55.96	5.60	43.88	5.20	76.72	28.74	49.89	62.83
FR-alpha (P15328)	48.30	96.96	32.12	21.16	61.92	0.00	27.49	16.70
FR-gamma (P41439)	5.46	0.00	20.41	4.72	16.81	0.00	14.56	32.20
FURIN (P09958)	5.29	0.00	14.79	8.06	17.47	0.00	15.07	18.27
Gal-1 (P09382)	12.89	0.00	18.53	18.87	3.69	0.00	20.99	27.36
GPC1 (P35052)	14.62	12.41	16.22	23.43	0.18	0.00	11.98	0.93
GPNMB (Q14956)	38.09	0.00	23.44	13.52	43.15	0.00	10.21	4.82
GZMB (P10144)	2.70	0.00	23.47	1.03	22.29	36.39	5.19	30.87
GZMH (P20718)	23.47	54.38	37.25	19.09	16.32	0.00	9.06	31.23
HGF (P14210)	36.93	0.00	20.74	4.25	41.96	0.00	10.43	1.86
hK11 (Q9UBX7)	50.53	100.00	22.15	29.31	65.98	100.00	17.20	1.21
hK14 (Q9P0G3)	22.86	0.00	26.00	26.91	15.95	0.00	32.12	43.30
hK8 (O60259)	26.21	0.00	22.28	2.76	21.31	0.00	19.48	2.38
ICOSLG (O75144)	8.70	35.16	40.39	10.29	10.07	0.00	34.94	26.27
IFN-gamma-R1 (P15260)	38.00	0.00	18.41	5.91	43.07	0.00	16.66	18.65
IGF1R (P08069)	34.94	10.95	34.25	8.25	37.38	0.00	21.15	14.02
IL6 (P05231)	68.52	11.19	22.09	5.07	100.00	0.00	31.69	41.23
ITGAV (P06756)	3.08	3.28	25.94	2.74	33.71	0.00	28.39	10.51
ITGB5 (P18084)	20.19	0.00	19.95	21.99	9.99	0.00	12.08	15.22
KLK13 (Q9UKR3)	33.33	22.99	21.20	25.81	34.85	0.00	18.04	14.86
LY9 (Q9HBG7)	27.45	0.00	11.41	55.00	23.92	7.65	16.22	25.10
LYN (P07948)	22.76	0.00	27.90	7.20	14.69	0.00	11.53	4.38
LYPD3 (O95274)	11.82	0.00	22.39	4.17	3.82	0.00	23.81	61.38
MAD homolog 5 (Q99717)	10.54	27.74	11.96	1.58	7.20	75.34	16.32	4.55
MetAP 2 (P50579)	17.05	62.29	20.40	1.39	3.94	0.00	15.98	2.98
MIA (Q16674)	25.36	0.00	36.11	27.00	20.78	0.00	30.72	14.41
MIC-A/B (Q29983)	20.36	18.25	23.91	22.23	10.75	0.00	10.50	20.13
MK (P21741)	38.43	0.00	28.75	10.84	44.12	77.38	16.22	16.90
MSLN (Q13421)	45.31	0.00	32.95	11.21	57.02	25.51	46.01	1.72
MUC-16 (Q8WXI7)	52.95	0.00	24.30	1.51	70.63	93.88	24.09	44.22
PODXL (O00592)	7.15	0.00	21.16	0.01	13.02	0.00	0.00	0.74

PPY (P01298)	18.86	0.00	20.12	1.69	8.31	0.00	14.52	2.94
PVRL4 (Q96NY8)	46.65	75.55	36.42	6.36	58.93	0.00	21.84	8.32
RET (P07949)	21.07	0.00	28.78	19.95	66.63	0.00	2.26	4.66
RSPO3 (Q9BXY4)	38.88	0.00	23.68	17.28	44.46	22.62	22.54	4.30
S100A11 (P31949)	29.17	0.00	19.10	16.08	26.69	0.00	26.21	10.20
S100A4 (P26447)	1.69	0.00	37.17	8.28	24.20	31.97	27.57	42.24
SCAMP3 (O14828)	28.53	0.00	24.77	27.00	25.62	0.00	16.09	8.54
SCF (P21583)	3.63	0.00	40.57	13.36	20.14	0.00	44.36	39.72
SEZ6L (Q9BYH1)	25.92	0.00	19.76	13.80	20.35	0.00	0.73	7.71
SPARC (P09486)	21.58	0.00	16.37	15.66	13.27	0.00	6.39	3.40
SYND1 (P18827)	41.29	0.00	34.79	23.51	49.35	0.00	25.52	15.50
TCL1A (P56279)	17.99	25.30	33.34	11.10	60.71	0.00	27.21	24.27
TFPI-2 (P48307)	20.24	0.00	22.89	6.50	9.82	10.88	11.64	23.67
TGF-alpha (P01135)	54.25	0.00	52.58	23.10	73.43	100.00	29.94	22.54
TGFR-2 (P37173)	46.39	95.86	13.59	8.51	58.53	0.00	17.02	25.16
TLR3 (O15455)	6.31	0.00	41.92	33.98	38.92	81.80	38.29	0.83
TNFRSF19 (Q9NS68)	51.97	0.00	30.54	23.10	68.87	0.00	15.17	25.43
TNFRSF4 (P43489)	34.48	0.00	24.33	24.11	37.25	0.00	9.75	25.01
TNFRSF6B (O95407)	50.62	0.00	24.30	38.88	66.38	0.00	37.04	18.89
TNFSF13 (O75888)	41.92	0.00	45.88	4.48	50.37	0.00	45.49	14.86
TRAIL (P50591)	7.84	15.94	23.10	4.17	41.83	0.00	5.73	19.37
TXLNA (P40222)	28.45	0.00	17.62	1.10	25.22	0.00	2.37	27.69
VEGFA (P15692)	46.82	3.28	26.01	1.83	59.67	0.00	11.56	27.24
VEGFR-2 (P35968)	15.59	89.29	25.98	25.94	55.73	95.92	16.59	8.66
VEGFR-3 (P35916)	4.16	0.00	12.11	55.64	18.60	0.00	7.04	13.95
VIM (P08670)	43.18	100.00	36.03	19.98	51.94	99.66	29.11	36.81
WFDC2 (Q14508)	66.67	42.09	59.67	30.08	96.24	100.00	100.00	15.06
WIF-1 (Q9Y5W5)	28.17	0.00	28.37	25.91	24.75	0.00	19.99	52.44
WISP-1 (O95388)	46.59	0.00	15.81	5.09	58.81	8.16	5.87	0.04
XPNPEP2 (O43895)	4.60	0.00	29.30	12.60	36.33	25.68	25.40	75.81

**Supplementary Table 9. Classification of HF re-admission in Inpatients through Day 180: Comparison of variable importance derived by applying various classification methods on the training data. Within each column, variable importance results were scaled to a range of 0 (least important) to 100 (most important).**

Variable	Local, central, Singulex, and Olink data				Olink data only			
	ROC	C5.0	Random Forests	Neural Networks	ROC	C5.0	Random Forests	Neural Networks
Atrial fibrillation	24.44	11.16	2.36	38.04				
Age, years	39.46	94.27	47.94	16.89				
Albumin, g/L	20.08	42.44	37.46	13.57				
Body mass index, kg/m <sup>2</sup>	9.40	60.68	46.33	5.21				
CABG	28.50	44.21	0.23	1.38				
COPD	18.91	15.47	0.65	2.89				
Diastolic blood pressure	58.70	25.80	42.73	21.13				
Diabetes mellitus	39.29	14.29	6.02	41.85				
eGFR, mL/min/1.73m <sup>2</sup>	95.04	95.93	57.25	51.05				
HDL, mmol/L	6.70	53.31	57.03	67.61				
Hemoglobin, g/dL	61.69	98.82	38.08	4.89				
Heart rate, bpm	11.75	95.57	33.59	20.65				
Hypertension	0.75	14.70	0.32	3.09				
Ischemic heart disease	6.52	21.96	4.06	13.69				
LDL, mmol/L	0.00	98.70	50.28	58.47				
Aldosterone, pg/mL, log <sub>2</sub>	39.49	70.54	51.19	2.06				
Alkaline phosphatase, µg/L, log <sub>2</sub>	8.38	86.30	54.88	16.31				
ALT, U/L, log <sub>2</sub>	7.67	58.09	40.60	20.42				
AST, U/L, log <sub>2</sub>	38.89	76.74	41.10	20.17				
ET-1, pg/mL, log <sub>2</sub>	64.93	99.65	42.06	22.53				
Ferritin, µg/L, log <sub>2</sub>	23.82	91.32	42.84	34.16				
GGT, U/L, log <sub>2</sub>	25.89	100.00	35.00	34.27				
Glucose, mmol/L, log <sub>2</sub>	5.17	77.15	65.96	30.09				
Hepcidin, nmol/L, log <sub>2</sub>	33.80	97.76	42.32	13.00				
Serum iron, µmol/L, log <sub>2</sub>	16.66	95.75	26.96	3.95				
Phosphate, mmol/L, log <sub>2</sub>	11.78	42.03	52.41	17.89				
Platelet count, 10 <sup>9</sup> /L, log <sub>2</sub>	1.04	95.22	46.24	1.76				
pro-ENK, pmol/L, log <sub>2</sub>	82.75	85.48	41.48	3.62				
Total bilirubin, µmol/L, log <sub>2</sub>	9.50	87.01	45.89	2.73				
Triglycerides, mmol/L, log <sub>2</sub>	15.11	86.30	36.76	30.71				

Troponin I, pg/mL, log2	52.17	99.94	41.36	5.85				
Troponin T, pg/mL, log2	60.53	98.05	44.40	17.84				
Urea, mmol/L, log2	47.91	99.59	50.93	39.35				
White blood cell count, 10 <sup>9</sup> /L, log2	6.14	29.10	46.98	15.32				
LVEF, %	26.30	65.76	43.44	51.89				
Male sex	8.15	0.00	1.61	33.86				
Myocardial infarction	71.60	100.00	14.92	30.76				
Peripheral artery disease	0.65	54.60	0.00	43.33				
HF hospitalization in last year	54.16	98.64	11.07	0.83				
PCI	27.04	0.00	3.04	19.62				
Potassium, mmol/L	28.91	98.52	56.39	63.06				
Red blood cell count, 10 <sup>12</sup> /L	6.51	81.70	40.32	6.67				
Systolic blood pressure, mmHg	61.08	97.58	53.38	50.55				
Sodium, mmol/L	90.53	99.65	85.74	66.38				
Stroke	15.25	66.71	4.28	16.18				
Transferrin, g/L	2.47	61.69	42.41	26.48				
ACE2 (Q9BYF1)	49.79	74.56	40.08	37.14	45.84	93.10	34.97	56.62
ADAM-TS13 (Q76LX8)	25.30	47.40	35.05	39.61	43.76	83.54	28.50	40.15
ADM (P35318)	83.69	99.47	53.10	0.00	86.21	97.84	62.35	17.33
AGRP (O00253)	69.53	89.96	32.17	17.27	70.95	71.06	19.77	28.97
AMBP (P02760)	33.06	4.13	28.33	3.88	25.99	35.70	31.20	33.96
ANG-1 (Q15389)	6.84	84.89	34.81	17.84	4.91	93.31	42.32	18.36
BMP-6 (P22004)	50.43	33.18	50.45	22.21	48.05	68.48	44.73	43.54
BNP (P16860)	66.17	98.17	34.23	31.44	66.64	100.00	35.61	22.75
BOC (Q9BWW1)	47.57	96.52	43.45	45.03	43.01	0.00	26.81	6.85
CA5A (P35218)	3.05	95.40	35.29	29.50	15.44	97.00	38.57	74.90
CCL17 (Q92583)	21.78	90.91	25.59	33.73	12.51	99.65	9.37	27.39
CCL3 (P10147)	72.80	49.47	33.45	2.86	73.27	92.12	23.27	41.52
CD40-L (P29965)	29.18	13.70	33.29	22.34	21.21	25.80	17.54	9.64
CD4 (P01730)	79.46	56.49	35.61	30.81	81.42	0.00	20.54	29.65
CD84 (Q9UIB8)	34.49	47.23	39.05	5.45	27.08	42.40	14.52	31.62
CEACAM8 (P31997)	46.84	57.20	37.26	29.08	41.49	37.17	20.04	32.56
CTRC (Q99895)	19.11	97.28	41.36	51.65	9.33	43.38	34.31	32.59
CTSL1 (P07711)	44.87	82.00	30.98	34.95	41.36	89.82	14.58	15.39
CXCL1 (P09341)	21.27	46.99	33.62	27.81	11.58	49.23	10.47	20.83

DCN (P07585)	53.66	68.30	41.67	3.36	50.24	15.20	44.43	23.77
DECR1 (Q16698)	25.81	7.50	34.64	2.89	17.25	0.00	16.88	11.23
Dkk-1 (O94907)	29.00	60.98	31.02	10.49	20.23	48.05	15.57	11.75
FABP2 (P12104)	34.98	55.37	37.07	18.01	28.29	33.89	31.11	24.91
FGF-21 (Q9NSA1)	64.11	11.10	40.52	24.54	62.52	12.97	23.13	42.00
FGF-23 (Q9GZV9)	95.27	23.67	63.86	35.57	100.00	100.00	83.77	34.46
FS (P19883)	31.76	64.34	39.91	1.39	23.77	57.53	38.17	35.81
Gal-9 (O00182)	74.55	0.00	33.06	39.17	75.27	0.00	24.33	9.38
GDF-2 (Q9UK05)	7.19	2.89	33.40	19.12	3.54	21.41	21.27	61.43
GH (P01241)	29.02	53.07	37.38	35.43	20.90	64.99	34.73	23.87
GIF (P27352)	22.92	67.18	47.77	21.66	12.67	50.21	38.03	44.41
GLO1 (Q04760)	13.60	45.63	32.54	12.07	2.02	40.03	25.01	8.95
GT (P51161)	55.53	97.76	38.69	0.48	52.68	97.42	47.97	17.40
HAOX1 (Q9UJM8)	2.72	52.48	41.17	12.68	8.11	44.70	11.02	26.52
HB-EGF (Q99075)	10.02	96.28	29.54	8.68	0.64	99.09	10.60	12.45
HO-1 (P09601)	17.47	71.07	29.71	1.52	8.84	96.51	22.57	5.33
hOSCAR (Q8IYS5)	49.64	44.10	33.98	12.62	45.40	19.18	25.04	8.14
HSP 27 (P04792)	37.34	99.23	47.01	2.40	31.76	100.00	77.50	1.11
IDUA (P35475)	31.33	37.60	40.20	0.77	23.99	60.04	36.88	23.74
IgG Fc receptor II-b (P31994)	29.46	33.18	38.72	27.37	22.54	41.07	24.13	6.81
IL-17D (Q8TAD2)	27.42	38.61	28.28	44.31	18.66	71.83	21.68	55.52
IL-18 (Q14116)	40.78	20.78	32.74	7.31	35.29	25.10	33.75	4.69
IL-1ra (P18510)	22.53	64.11	34.90	31.90	12.75	75.38	21.53	54.46
IL-27 (Q8NEV9)	41.44	97.05	35.84	8.67	35.85	65.13	26.13	6.79
IL-4RA (P24394)	64.75	0.00	31.11	9.27	63.72	0.00	24.32	30.56
IL16 (Q14005)	57.52	11.10	31.40	76.56	54.77	0.00	15.60	85.43
IL1RL2 (Q9HB29)	4.81	100.00	37.22	19.86	8.39	100.00	30.10	17.39
ITGB1BP2 (Q9UKP3)	22.05	5.25	28.12	49.07	12.73	11.23	14.67	12.60
KIM1 (Q96D42)	41.06	17.12	39.19	5.51	36.44	99.65	45.76	36.25
LEP (P41159)	14.93	26.56	31.20	12.57	5.86	71.76	19.66	37.06
LOX-1 (P78380)	26.83	51.42	33.13	26.50	17.62	0.00	32.10	9.38
LPL (P06858)	34.97	91.03	38.42	14.34	29.44	98.33	27.19	6.00
MARCO (Q9UEW3)	23.03	6.32	33.97	25.59	13.11	69.53	22.01	47.99
MERTK (Q12866)	49.91	63.22	34.20	27.80	46.18	78.52	23.27	26.70
MMP-12 (P39900)	42.29	85.66	44.84	24.96	37.11	84.24	40.53	19.88

MMP-7 (P09237)	36.18	26.98	29.32	24.35	30.40	10.88	30.49	6.72
NEMO (Q9Y6K9)	34.91	46.16	27.30	11.10	28.03	0.00	9.86	3.36
PAPPA (Q13219)	19.97	81.40	31.53	85.94	11.95	89.82	15.25	51.03
PAR-1 (P25116)	76.35	91.15	48.10	31.85	77.38	95.26	46.76	26.44
PARP-1 (P09874)	25.12	8.97	27.12	21.00	16.86	64.92	13.51	17.09
PD-L2 (Q9BQ51)	60.30	81.29	30.73	12.30	58.44	95.19	18.38	3.82
PDGF subunit B (P01127)	6.93	92.15	37.95	14.50	4.64	93.79	42.08	11.28
PGF (P49763)	59.89	37.54	33.27	35.32	57.24	29.78	27.29	2.43
PIgR (P01833)	25.72	89.67	34.54	15.56	17.34	97.49	10.30	24.03
PRELP (P51888)	73.68	37.78	40.72	43.52	74.47	14.57	28.33	5.74
PRSS27 (Q9BQR3)	40.91	63.93	34.42	27.07	34.51	52.79	28.71	31.47
PRSS8 (Q16651)	58.91	98.29	33.20	32.14	57.15	69.87	25.78	11.64
PSGL-1 (Q14242)	23.93	90.26	58.83	14.50	39.86	91.21	59.62	69.80
PTX3 (P26022)	7.77	94.63	45.73	7.26	4.13	65.62	46.37	24.51
RAGE (Q15109)	71.83	99.70	58.96	39.87	72.46	99.93	64.64	35.68
REN (P00797)	77.89	99.82	100.00	36.98	80.40	100.00	100.00	3.94
SERPINA12 (Q8IW75)	15.42	83.35	47.37	9.06	6.25	49.65	43.88	6.91
SLAMF7 (Q9NQ25)	42.31	95.87	48.78	31.58	36.60	99.93	39.98	11.05
SOD2 (P04179)	11.58	96.28	52.03	26.14	1.62	86.05	46.16	45.17
SORT1 (Q99523)	20.01	83.47	35.95	2.88	9.52	43.38	21.59	4.82
SPON2 (Q9BUD6)	64.17	43.92	30.30	15.30	63.76	71.06	31.83	37.68
SRC (P12931)	20.03	0.00	34.83	47.28	10.27	52.79	21.99	59.88
STK4 (Q13043)	24.32	64.23	31.35	2.41	16.08	35.63	17.88	4.61
TF (P13726)	52.91	23.85	35.47	65.20	48.87	0.00	18.65	7.57
TGM2 (P21980)	4.93	7.79	36.79	30.03	6.55	81.45	39.80	18.47
THBS2 (P35442)	40.10	78.63	39.75	40.37	34.85	91.91	23.76	13.10
THPO (P40225)	14.68	82.82	34.49	28.64	4.29	63.39	21.71	35.41
TIE2 (Q02763)	34.62	60.68	33.15	0.94	27.70	70.78	22.34	39.61
TM (P07204)	53.46	18.48	31.29	27.16	50.01	0.00	16.11	2.53
TNFRSF10A (O00220)	66.00	57.14	35.39	47.55	65.04	10.46	15.98	47.15
TNFRSF11A (Q9Y6Q6)	74.82	99.11	36.26	3.91	75.25	97.91	23.78	18.75
TNFRSF13B (O14836)	62.54	16.82	41.40	22.71	63.15	10.25	41.83	43.75
TRAIL-R2 (O14763)	85.08	59.03	42.38	31.46	88.25	11.09	44.21	16.96
VEGFD (O43915)	49.35	100.00	34.32	40.23	46.68	100.00	40.03	4.25
VSIG2 (Q96IQ7)	85.93	84.65	55.17	30.84	88.81	61.23	48.00	33.80

XCL1 (P47992)	50.41	43.57	43.61	11.20	48.73	74.41	41.72	7.89
ALCAM (Q13740)	46.22	0.00	26.69	1.69	49.62	10.74	16.53	2.40
AP-N (P15144)	37.74	39.96	31.84	4.84	41.85	0.00	22.93	2.37
AXL (P30530)	44.96	95.16	28.19	3.71	49.08	89.33	14.61	8.24
AZU1 (P20160)	3.03	100.00	14.32	0.27	0.69	100.00	1.20	0.87
BLM hydrolase (Q13867)	17.13	12.81	22.92	8.60	17.76	0.00	1.47	4.16
CASP-3 (P42574)	17.89	91.79	29.01	9.79	10.99	31.59	9.39	8.59
CCL15 (Q16663)	54.26	0.00	23.94	36.13	57.46	55.79	9.50	19.54
CCL16 (O15467)	31.32	43.15	30.20	5.48	35.47	0.00	20.47	70.24
CCL22 (O00626)	18.82	86.54	39.64	21.68	17.35	48.54	19.19	9.68
CCL24 (O00175)	19.36	44.81	34.67	2.89	14.20	86.19	6.14	23.49
CD163 (Q86VB7)	49.85	3.48	35.19	3.41	51.70	73.78	23.44	0.51
CD93 (Q9NPY3)	64.29	0.00	40.37	6.93	69.52	37.87	27.89	44.77
CDH5 (P33151)	46.81	23.91	28.86	12.01	50.07	20.92	16.01	7.20
CHI3L1 (P36222)	51.76	26.98	32.20	39.74	47.39	41.14	12.77	11.00
CHIT1 (Q13231)	30.48	6.26	31.90	32.16	30.36	90.10	15.85	27.25
CNTN1 (Q12860)	13.20	72.67	29.00	43.45	12.28	25.59	18.18	0.65
COL1A1 (P02452)	38.71	6.38	25.65	40.36	43.74	69.53	13.51	4.08
CPA1 (P15085)	47.19	4.49	40.41	0.09	47.11	97.77	29.45	8.00
CPB1 (P15086)	43.62	49.70	33.47	39.68	43.82	92.96	20.03	3.99
CSTB (P04080)	88.51	63.05	39.75	51.61	90.47	44.00	33.48	59.66
CTSD (P07339)	52.32	51.95	40.14	4.82	56.43	23.08	29.96	8.07
CTSZ (Q9UBR2)	52.06	0.00	34.63	24.87	57.46	18.62	27.31	15.46
CXCL16 (Q9H2A7)	42.30	54.37	35.40	59.30	48.03	48.05	22.21	2.76
DLK-1 (P80370)	45.84	100.00	30.75	40.53	50.42	100.00	20.07	0.34
EGFR (P00533)	5.62	68.30	24.53	7.22	7.87	60.88	17.08	38.21
Ep-CAM (P16422)	24.19	54.01	40.46	45.41	28.46	30.20	39.87	18.49
EPHB4 (P54760)	56.14	77.15	25.18	25.80	62.19	37.31	14.01	9.32
FABP4 (P15090)	81.83	16.23	43.15	25.32	79.96	94.00	26.81	59.47
FAS (P25445)	41.76	71.90	30.91	29.03	48.11	44.28	6.21	13.44
Gal-3 (P17931)	49.03	95.69	41.93	25.51	50.73	23.78	31.11	4.05
Gal-4 (P56470)	70.60	39.43	40.31	35.57	73.40	90.66	31.98	46.39
GDF-15 (Q99988)	81.38	56.91	37.75	48.34	81.03	0.00	25.40	24.16
GRN (P28799)	56.74	43.45	27.40	4.09	62.38	0.00	14.80	23.26
ICAM-2 (P13598)	52.69	37.66	37.21	1.54	57.47	18.83	17.83	16.07

IGFBP-1 (P08833)	62.27	23.26	37.39	26.03	59.67	66.39	26.78	44.86
IGFBP-2 (P18065)	62.69	100.00	37.15	1.95	65.28	30.89	28.26	54.61
IGFBP-7 (Q16270)	75.12	0.00	46.15	22.11	79.77	0.00	38.00	26.28
IL-17RA (Q96F46)	24.26	99.35	30.88	7.69	24.52	95.96	16.49	8.08
IL-18BP (O95998)	57.43	69.54	31.88	28.67	60.12	48.74	19.75	16.81
IL-1RT1 (P14778)	59.57	73.02	35.82	57.39	65.89	90.52	24.43	51.31
IL-1RT2 (P27930)	21.14	54.37	29.95	59.41	22.95	89.89	14.52	25.47
IL-6RA (P08887)	23.89	11.75	32.07	3.10	24.37	18.83	15.53	30.93
IL2-RA (P01589)	65.44	42.03	30.93	46.19	67.52	10.32	21.34	25.15
ITGB2 (P05107)	36.90	39.14	37.04	8.99	37.79	46.03	31.59	38.25
JAM-A (Q9Y624)	49.67	29.57	36.89	14.56	51.20	27.06	14.68	6.06
KLK6 (Q92876)	38.37	59.03	22.92	25.78	36.05	64.09	1.11	27.60
LDL receptor (P01130)	5.80	60.68	32.42	13.99	2.06	18.27	23.34	12.10
LTBR (P36941)	58.42	10.21	32.77	33.86	63.95	36.61	14.83	32.88
MB (P02144)	64.87	69.83	54.22	34.02	66.76	59.27	32.16	19.28
MCP-1 (P13500)	52.59	31.11	29.96	21.04	55.25	70.85	10.84	48.17
MEPE (Q9NQ76)	35.17	67.41	26.96	44.36	40.79	15.06	13.76	10.32
MMP-2 (P08253)	62.47	91.20	46.48	17.08	64.77	23.78	35.65	26.80
MMP-3 (P08254)	45.19	18.42	36.03	2.31	46.41	27.13	25.16	21.56
MMP-9 (P14780)	3.08	89.79	36.61	3.02	0.19	68.55	10.66	36.04
MPO (P05164)	17.30	9.74	35.13	19.55	20.23	96.72	30.67	40.94
Notch 3 (Q9UM47)	46.07	10.80	31.88	38.49	48.72	0.00	8.15	57.52
NT-proBNP (NA)	100.00	99.41	52.53	34.85	95.44	96.37	53.00	40.14
OPG (O00300)	51.25	9.62	35.34	25.63	54.51	0.00	24.30	13.89
OPN (P10451)	38.08	30.40	30.97	43.09	42.69	0.00	19.48	25.71
PAI (P05121)	26.83	9.98	40.01	24.83	25.44	0.00	37.54	42.58
PCSK9 (Q8NBP7)	16.00	35.24	32.88	8.87	18.13	0.00	21.84	10.80
PDGF subunit A (P04085)	0.52	46.16	32.38	2.96	2.32	24.06	26.27	28.81
PECAM-1 (P16284)	47.22	7.26	39.51	41.61	50.77	32.29	36.58	8.59
PGLYRP1 (O75594)	52.28	67.12	29.50	25.10	56.65	62.27	19.44	20.60
PI3 (P19957)	42.83	49.94	26.93	32.53	40.42	77.75	10.49	7.58
PLC (P98160)	70.65	100.00	30.34	24.89	75.38	100.00	23.06	3.45
PON3 (Q15166)	19.02	11.45	37.67	33.53	21.71	60.88	17.21	13.14
PRTN3 (P24158)	22.28	50.35	23.06	26.26	22.61	10.18	16.07	5.08
PSP-D (P35247)	47.06	91.32	40.99	5.19	38.21	40.86	25.37	22.04

RARRES2 (Q99969)	32.00	4.37	29.32	21.45	35.57	26.15	19.39	0.35
RETN (Q9HD89)	51.13	56.02	36.53	14.88	55.76	53.97	25.20	21.33
SCGB3A2 (Q96PL1)	56.40	32.88	40.20	10.50	59.34	42.54	39.92	13.85
SELE (P16581)	53.33	55.67	38.15	83.58	54.63	54.53	44.73	39.78
SELP (P16109)	16.80	33.65	34.16	42.71	17.11	36.12	15.39	7.53
SHPS-1 (P78324)	53.01	68.60	26.67	13.52	57.34	41.35	26.93	9.86
SPON1 (Q9HCB6)	63.91	17.53	37.31	5.80	67.73	0.00	13.78	8.92
ST2 (Q01638)	59.69	78.93	37.18	6.30	59.73	70.36	27.68	20.55
t-PA (P00750)	22.63	65.53	34.61	27.00	25.62	59.90	29.71	46.37
TFF3 (Q07654)	77.77	27.27	33.56	3.54	82.84	39.40	34.77	32.35
TFPI (P10646)	13.22	99.82	32.93	30.67	15.90	98.54	21.74	27.12
TIMP4 (Q99727)	45.83	79.75	33.23	37.67	46.96	0.00	16.11	7.66
TLT-2 (Q5T2D2)	24.95	67.30	28.43	15.33	29.30	0.00	20.38	4.58
TNF-R1 (P19438)	64.86	77.45	30.52	42.06	66.92	83.89	21.42	11.72
TNF-R2 (P20333)	70.30	0.00	33.95	13.18	74.28	0.00	20.63	21.44
TNFRSF10C (O14798)	32.80	29.52	28.51	27.69	34.66	48.68	18.50	17.27
TNFRSF14 (Q92956)	62.78	5.49	26.66	0.17	67.45	73.01	19.48	19.11
TNFSF13B (Q9Y275)	72.32	100.00	54.99	100.00	73.63	100.00	70.43	9.91
TR-AP (P13686)	9.59	71.72	38.10	11.39	8.81	77.96	36.86	22.38
TR (P02786)	59.85	89.37	43.99	42.81	56.88	65.48	34.22	62.06
U-PAR (Q03405)	79.65	84.36	39.93	1.60	82.80	84.31	37.14	6.28
uPA (P00749)	50.58	0.00	31.78	19.12	55.15	16.46	18.93	13.58
vWF (P04275)	26.33	50.71	37.74	11.70	27.47	16.95	33.07	7.93
ARNT (P27540)	29.72	32.82	32.67	50.26	22.25	89.82	26.74	49.29
BACH1 (O14867)	31.24	27.80	28.31	31.32	22.22	30.75	19.65	42.04
BIRC2 (Q13490)	31.13	100.00	27.78	10.90	22.39	100.00	4.18	25.60
BTN3A2 (P78410)	65.30	100.00	42.65	19.21	63.22	64.57	46.80	6.82
CCL11 (P51671)	28.54	75.21	36.74	12.30	20.22	0.00	19.76	0.48
CD28 (P10747)	61.10	100.00	28.56	11.93	57.75	100.00	11.08	27.88
CD83 (Q01151)	59.42	29.93	37.44	10.82	55.50	65.90	27.98	18.15
CDSN (Q15517)	56.15	24.44	36.00	95.00	51.96	52.51	23.12	2.71
CKAP4 (Q07065)	68.79	57.38	42.71	12.98	67.01	74.90	44.12	20.18
CLEC4A (Q9UMR7)	7.63	82.88	39.20	14.00	6.59	84.80	31.35	21.65
CLEC4C (Q8WTT0)	3.91	83.59	39.53	29.84	10.06	63.18	19.13	15.73
CLEC4D (Q8WXI8)	44.65	61.69	34.86	64.37	37.89	29.57	32.44	5.29

CLEC4G (Q6UXB4)	26.04	94.98	53.58	5.81	16.13	99.30	30.01	42.96
CLEC6A (Q6EIG7)	51.00	100.00	33.01	1.03	45.46	100.00	24.33	8.33
CLEC7A (Q9BXN2)	71.20	100.00	35.68	42.34	69.66	100.00	19.32	12.94
CNTNAP2 (Q9UHC6)	45.30	92.03	44.90	36.08	38.90	99.58	47.66	6.85
CXADR (P78310)	79.46	70.13	51.26	44.94	80.33	43.24	36.70	6.00
CXCL12 (P48061)	36.75	12.69	39.91	21.50	30.71	37.31	26.60	11.18
DAPP1 (Q9UN19)	20.77	0.00	29.15	5.02	10.39	43.17	6.15	1.53
DCBLD2 (Q96PD2)	22.27	89.49	41.05	14.66	12.29	27.41	41.22	28.78
DCTN1 (Q14203)	35.16	41.26	27.48	48.40	27.95	51.19	23.19	9.54
DDX58 (O95786)	23.09	5.14	22.52	26.94	12.57	10.60	9.05	4.30
DFFA (O00273)	31.77	21.66	29.81	29.16	23.06	11.16	11.17	6.58
DGKZ (Q13574)	32.78	85.54	37.41	25.79	24.17	58.58	26.33	1.52
DPP10 (Q8N608)	44.15	30.64	27.51	0.96	38.00	41.14	33.63	7.89
EDAR (Q9UNE0)	26.23	45.57	38.56	34.95	17.65	36.05	17.39	18.87
EGLN1 (Q9GZT9)	43.17	19.72	33.98	15.87	35.87	31.73	16.89	3.65
EIF4G1 (Q04637)	36.72	3.78	30.69	15.69	29.31	0.00	9.95	30.43
EIF5A (P63241)	34.51	74.85	45.13	10.46	27.81	0.00	44.74	65.14
FAM3B (P58499)	63.93	46.64	48.90	26.87	61.13	60.81	62.81	2.84
FCRL3 (Q96P31)	34.82	39.43	36.71	6.49	27.43	14.57	26.72	29.98
FCRL6 (Q6DN72)	42.40	37.84	38.05	46.37	36.66	61.85	40.69	42.50
FGF2 (P09038)	31.79	98.17	32.89	28.65	23.18	98.74	12.59	38.69
FXYD5 (Q96DB9)	30.40	98.58	29.17	8.05	21.41	98.74	20.03	17.19
GALNT3 (Q14435)	54.58	100.00	42.77	13.12	50.73	56.76	50.03	58.11
GLB1 (P16278)	16.46	89.85	38.15	6.78	5.39	34.73	29.46	21.57
HCLS1 (P14317)	36.40	59.74	35.46	9.75	28.81	91.56	9.26	22.51
HEXIM1 (O94992)	43.36	100.00	29.81	39.58	37.05	100.00	29.94	16.21
HNMT (P50135)	26.76	83.06	44.32	68.48	16.88	92.61	47.13	42.34
HSD11B1 (P28845)	32.07	24.97	40.29	10.41	25.26	77.06	38.08	24.04
ICA1 (Q05084)	37.06	93.03	28.23	21.27	29.70	98.74	0.00	17.01
IFNLR1 (Q8IU57)	41.61	78.34	47.16	33.27	35.06	75.31	25.56	27.55
IL10 (P22301)	38.83	28.81	40.50	27.67	31.15	12.20	13.56	8.52
IL12RB1 (P42701)	50.23	12.63	31.35	13.86	45.08	36.47	18.35	1.25
IL5 (P05113)	29.23	100.00	47.78	38.46	20.24	100.00	52.31	30.44
IRAK1 (P51617)	45.85	100.00	26.29	28.25	39.97	100.00	6.93	53.13
IRAK4 (Q9NWZ3)	26.46	0.00	27.58	17.22	17.11	0.00	15.30	12.58

IRF9 (Q00978)	37.42	89.49	37.73	4.18	30.21	23.99	16.05	23.16
ITGA11 (Q9UKX5)	13.73	48.76	38.77	14.44	2.36	69.87	16.85	11.88
ITGA6 (P23229)	22.88	10.80	38.74	5.24	13.11	54.81	21.66	1.68
ITGB6 (P18564)	44.23	57.91	31.11	75.12	38.43	0.00	14.30	25.11
ITM2A (O43736)	27.85	95.45	29.10	11.71	18.71	90.45	16.94	21.66
JUN (P05412)	28.88	45.75	28.77	66.77	20.21	63.11	31.42	0.66
KLRD1 (Q13241)	31.82	78.28	39.45	16.77	24.24	89.26	38.60	28.50
KPNA1 (P52294)	31.08	85.01	31.24	0.42	22.81	91.98	22.14	11.33
KRT19 (P08727)	72.65	11.57	45.58	20.52	72.43	0.00	32.85	21.99
LAG3 (P18627)	68.70	97.23	35.85	21.29	67.05	0.00	23.77	5.25
LAMP3 (Q9UQV4)	65.58	38.96	37.00	14.93	63.64	93.03	36.10	1.27
LILRB4 (Q8NHJ6)	85.72	62.99	48.84	35.74	88.03	97.70	55.84	64.78
LY75 (O60449)	28.42	29.10	31.70	17.57	18.95	30.68	28.38	6.36
MASPI (P48740)	20.99	2.30	41.14	16.25	12.51	10.39	29.37	23.88
MGMT (P16455)	12.88	80.87	32.24	15.48	0.24	97.77	23.09	14.37
MILR1 (Q7Z6M3)	46.76	55.31	32.33	12.54	40.73	63.25	25.89	56.78
NCR1 (O76036)	41.99	62.28	37.51	33.27	37.08	82.57	40.07	62.55
NF2 (P35240)	25.96	64.11	30.85	0.26	16.40	0.00	8.75	4.20
NFATC3 (Q12968)	5.59	88.96	26.04	8.46	8.30	93.24	9.67	11.47
NTF4 (P34130)	19.42	10.63	40.28	27.58	8.24	9.34	37.47	38.18
PADI2 (Q9Y2J8)	25.71	97.40	25.90	28.26	17.59	95.96	22.47	17.06
PIK3AP1 (Q6ZUJ8)	21.39	32.35	30.84	26.40	10.63	0.00	25.51	5.02
PLXNA4 (Q9HCM2)	25.69	0.00	34.87	68.07	16.03	24.27	25.79	3.95
PPP1R9B (Q96SB3)	33.84	0.00	35.96	12.94	26.10	64.78	32.05	2.83
PRDX1 (Q06830)	22.61	31.23	36.05	6.27	12.14	0.00	15.43	25.08
PRDX3 (P30048)	31.82	78.87	31.74	43.99	23.48	77.06	27.85	31.74
PRDX5 (P30044)	31.20	89.08	28.50	17.94	22.70	11.58	10.30	52.56
PRKCQ (Q04759)	31.83	22.96	32.06	11.43	24.53	17.64	26.50	11.19
PSIP1 (O75475)	37.02	59.21	36.57	5.52	29.24	93.17	21.37	3.78
PTH1R (Q03431)	17.20	31.23	39.98	17.65	7.05	37.45	30.40	45.79
SH2B3 (Q9UQQ2)	20.67	25.91	30.92	45.18	10.37	47.21	10.75	50.06
SH2D1A (O60880)	49.76	30.40	32.65	18.71	44.60	0.00	28.87	72.85
SIT1 (Q9Y3P8)	9.77	78.63	42.08	9.11	1.85	86.75	34.15	21.55
SPRY2 (O43597)	40.75	74.56	32.55	14.16	34.28	71.69	21.10	0.00
SRPK2 (P78362)	32.15	18.18	25.27	0.49	23.86	10.74	3.65	5.04

STC1 (P52823)	37.85	16.77	38.21	13.22	30.89	0.00	22.83	40.29
TANK (Q92844)	23.20	97.82	28.77	25.46	13.29	75.31	13.42	5.96
TPSAB1 (Q15661)	35.92	22.08	51.37	25.15	29.89	0.00	21.89	40.61
TRAF2 (Q12933)	26.17	17.59	31.59	5.64	16.68	0.00	22.97	58.43
TREM1 (Q9NP99)	73.97	0.00	38.69	30.45	73.09	10.53	32.50	20.47
TRIM21 (P19474)	22.34	16.00	38.59	3.05	12.02	24.83	40.65	21.48
TRIM5 (Q9C035)	40.13	83.83	32.00	6.47	33.16	29.85	16.44	33.65
ZBTB16 (Q05516)	21.24	45.10	35.26	3.68	10.89	56.76	14.66	6.30
5-NT (P21589)	36.10	100.00	38.48	41.37	28.72	98.40	19.80	30.61
ABL1 (P00519)	60.65	7.79	30.42	33.23	58.08	67.29	16.13	26.13
ADAM-TS 15 (Q8TE58)	39.09	37.96	34.46	0.70	31.84	14.64	13.01	26.26
ADAM8 (P78325)	53.69	45.04	47.35	33.98	49.02	24.06	35.70	44.33
ANXA1 (P04083)	20.17	97.11	39.74	7.60	8.66	88.08	27.43	33.20
AREG (P15514)	81.47	100.00	46.33	30.45	82.26	99.93	36.15	1.08
CAIX (Q16790)	48.16	69.66	35.79	31.00	43.08	86.54	26.59	5.04
CD160 (O95971)	66.79	74.68	34.31	39.73	65.90	0.00	23.73	5.59
CD207 (Q9UJ71)	14.05	70.01	35.86	15.06	1.21	91.42	31.39	23.58
CD27 (P26842)	63.47	35.60	40.55	23.41	61.50	31.66	22.14	17.72
CD48 (P09326)	55.49	7.91	37.58	12.03	51.23	28.52	17.99	7.22
CD70 (P32970)	43.78	88.08	39.57	2.88	37.30	95.75	44.65	16.88
CDKN1A (P38936)	38.70	10.63	25.68	21.40	32.02	33.61	12.00	19.72
CEACAM1 (P13688)	21.00	76.15	30.72	1.18	9.87	50.14	13.17	53.13
CEACAM5 (P06731)	42.22	95.16	34.27	13.80	34.36	62.48	20.68	15.13
CPE (P16870)	44.61	16.59	39.65	25.92	38.35	45.33	26.54	1.83
CRNN (Q9UBG3)	1.04	75.56	40.58	10.36	12.12	25.24	59.11	40.48
CTSV (O60911)	14.43	45.45	30.61	20.12	29.90	81.10	23.33	6.21
CXCL13 (O43927)	36.34	96.40	39.77	33.70	30.78	91.14	33.08	59.37
CXL17 (Q6UXB2)	60.01	100.00	38.81	26.31	59.35	94.28	39.37	6.61
CYR61 (O00622)	43.68	53.48	42.92	39.12	37.90	62.48	46.13	37.15
DLL1 (O00548)	74.72	77.63	32.56	34.28	74.02	70.22	40.99	1.68
EGF (P01133)	12.14	64.58	39.30	17.88	0.00	69.32	19.58	23.73
EPHA2 (P29317)	72.15	77.98	31.93	21.46	71.17	9.97	24.94	6.24
ERBB2 (P04626)	24.98	40.26	25.87	33.73	15.81	12.55	20.70	3.94
ERBB3 (P21860)	19.06	19.83	32.38	14.22	7.76	6.14	11.80	19.90
ERBB4 (Q15303)	41.28	57.85	31.80	7.11	35.49	78.17	26.39	33.32

ESM-1 (Q9NQ30)	39.00	41.44	39.89	7.98	32.14	64.44	30.93	24.29
FADD (Q13158)	27.03	0.00	31.63	17.47	17.72	15.20	14.68	3.56
FASLG (P48023)	13.30	52.77	33.77	0.36	2.80	55.23	8.93	33.09
FCRLB (Q6BAA4)	46.00	98.17	39.95	19.11	41.04	88.35	26.00	61.43
FGF-BP1 (Q14512)	20.42	51.00	45.54	43.74	10.16	37.66	22.50	50.19
FR-alpha (P15328)	73.86	85.36	32.59	33.64	72.78	84.38	33.43	41.01
FR-gamma (P41439)	31.42	78.04	41.91	20.15	22.69	67.64	24.16	54.87
FURIN (P09958)	6.57	30.70	39.94	34.86	6.12	0.00	37.74	2.00
Gal-1 (P09382)	30.06	0.00	34.87	23.60	20.59	49.86	35.23	14.55
GPC1 (P35052)	55.40	39.02	31.16	19.85	51.84	0.00	30.44	6.82
GPNMB (Q14956)	47.86	28.28	30.05	8.78	42.14	62.55	29.97	91.70
GZMB (P10144)	19.96	62.57	34.80	9.46	10.16	19.46	22.63	16.10
GZMH (P20718)	27.10	32.17	47.21	11.27	18.23	50.56	46.08	34.54
HGF (P14210)	49.22	70.31	28.99	10.55	43.74	53.63	21.59	10.04
hK11 (Q9UBX7)	87.59	68.48	54.09	5.84	89.47	98.61	50.28	100.00
hK14 (Q9P0G3)	7.72	91.38	42.56	48.32	5.85	77.06	22.46	28.44
hK8 (O60259)	45.69	15.17	40.42	36.33	39.97	0.00	26.26	1.56
ICOSLG (O75144)	35.97	94.57	31.42	4.05	27.97	99.79	19.45	7.86
IFN-gamma-R1 (P15260)	68.43	45.51	46.24	40.72	66.61	1.60	25.66	29.99
IGF1R (P08069)	66.39	0.00	35.23	25.64	64.14	68.13	27.02	25.37
IL6 (P05231)	37.69	54.25	36.31	4.25	30.23	20.01	17.96	19.94
ITGAV (P06756)	38.43	38.02	38.88	26.27	30.90	24.83	36.08	45.06
ITGB5 (P18084)	54.66	6.79	29.24	75.80	50.30	33.40	23.80	12.94
KLK13 (Q9UKR3)	21.53	92.03	39.35	10.63	12.14	81.52	62.97	14.85
LY9 (Q9HBG7)	50.08	50.47	41.66	1.36	45.71	88.77	32.03	50.16
LYN (P07948)	22.66	0.00	31.22	40.64	12.86	15.06	1.53	25.95
LYPD3 (O95274)	9.65	34.83	37.01	1.24	3.11	11.65	19.08	9.04
MAD homolog 5 (Q99717)	16.60	99.82	36.24	16.23	33.70	98.68	3.73	52.76
MetAP 2 (P50579)	27.86	20.72	32.24	17.49	18.59	12.20	15.26	12.87
MIA (Q16674)	27.19	14.11	31.33	3.13	18.75	65.62	24.80	10.11
MIC-A/B (Q29983)	10.83	72.43	42.43	16.36	1.33	87.52	32.68	28.53
MK (P21741)	33.68	94.81	28.93	6.40	25.59	79.57	24.85	1.40
MSLN (Q13421)	58.57	31.94	42.33	4.23	55.54	40.24	34.53	0.02
MUC-16 (Q8WXI7)	40.86	95.63	28.41	10.25	35.08	93.79	17.25	26.56
PODXL (O00592)	24.59	20.96	35.87	20.46	14.14	10.11	17.65	6.89

PPY (P01298)	42.22	36.48	36.90	12.66	35.22	20.43	29.48	21.96
PVRL4 (Q96NY8)	61.86	0.00	28.73	15.21	58.98	44.77	24.88	30.88
RET (P07949)	7.90	51.42	38.92	16.42	3.92	56.21	22.75	9.85
RSPO3 (Q9BXY4)	64.28	55.55	34.48	16.56	61.57	87.73	20.48	2.31
S100A11 (P31949)	48.81	2.01	30.83	27.65	43.13	10.53	30.69	5.13
S100A4 (P26447)	13.90	97.87	35.52	16.37	1.84	95.40	18.91	35.55
SCAMP3 (O14828)	47.31	91.74	27.88	28.25	41.84	72.52	4.24	10.72
SCF (P21583)	1.07	19.24	30.89	20.43	13.90	31.24	19.66	6.30
SEZ6L (Q9BYH1)	27.12	100.00	32.77	40.45	16.75	9.97	15.42	30.16
SPARC (P09486)	13.40	88.61	33.41	8.44	1.17	29.43	19.12	14.74
SYND1 (P18827)	56.69	67.53	37.52	1.67	53.49	72.11	18.96	6.09
TCL1A (P56279)	14.74	34.36	42.79	65.45	31.63	7.95	26.71	12.35
TFPI-2 (P48307)	32.39	74.56	29.31	15.79	23.81	17.29	15.19	25.42
TGF-alpha (P01135)	65.21	11.81	26.38	19.58	62.60	15.27	20.11	19.30
TGFR-2 (P37173)	65.60	78.34	38.92	15.47	63.41	51.81	38.01	55.47
TLR3 (O15455)	19.72	80.46	33.14	7.08	8.18	91.70	21.98	6.43
TNFRSF19 (Q9NS68)	77.91	25.56	44.16	7.28	78.02	9.97	34.81	50.90
TNFRSF4 (P43489)	74.08	68.95	45.82	33.64	73.33	12.06	49.68	16.60
TNFRSF6B (O95407)	59.47	94.33	42.58	8.68	56.32	77.41	47.92	20.98
TNFSF13 (O75888)	66.39	29.04	38.13	16.07	64.25	96.30	29.40	31.19
TRAIL (P50591)	2.37	66.47	36.56	5.83	11.83	77.96	31.03	36.68
TXLNA (P40222)	31.73	76.68	25.16	31.75	23.50	93.38	12.41	57.53
VEGFA (P15692)	65.05	0.00	34.49	14.56	62.44	0.00	23.61	19.23
VEGFR-2 (P35968)	3.14	26.03	38.12	8.69	18.01	69.25	27.36	33.62
VEGFR-3 (P35916)	28.20	5.37	32.10	3.09	18.62	31.66	22.41	2.44
VIM (P08670)	44.29	49.88	31.66	10.34	38.32	28.10	17.83	33.88
WFDC2 (Q14508)	83.25	22.85	35.85	26.05	84.43	34.31	30.56	61.20
WIF-1 (Q9Y5W5)	68.44	86.30	58.78	55.25	67.25	100.00	65.75	19.62
WISP-1 (O95388)	80.06	9.98	34.16	46.71	80.77	72.94	41.06	26.37
XPNPEP2 (O43895)	7.62	59.62	38.17	29.18	3.14	74.20	29.21	52.66

**Supplementary Table 10. Classification of HF re-admission in Outpatients through Day 180: Comparison of variable importance derived by applying various classification methods on the training data. Within each column, variable importance results were scaled to a range of 0 (least important) to 100 (most important).**

Variable	Local, central, Singulex, and Olink data				Olink data only			
	ROC	C5.0	Random Forests	Neural Networks	ROC	C5.0	Random Forests	Neural Networks
Atrial fibrillation	14.96	0.00	0.00	54.23				
Age, years	68.84	100.00	63.12	35.11				
Albumin, g/L	34.36	76.40	48.71	17.81				
Body mass index, kg/m <sup>2</sup>	43.90	91.12	78.80	10.61				
CABG	15.41	10.22	3.37	26.10				
COPD	15.73	18.73	2.72	36.18				
Diastolic blood pressure	85.19	54.99	48.84	55.80				
Diabetes mellitus	38.80	0.00	10.18	100.00				
eGFR, mL/min/1.73m <sup>2</sup>	100.00	52.31	33.77	13.51				
HDL, mmol/L	8.10	39.42	45.48	14.91				
Hemoglobin, g/dL	54.01	0.00	38.38	47.53				
Heart rate, bpm	34.91	63.38	55.50	0.41				
Hypertension	3.97	0.00	3.23	22.58				
Ischemic heart disease	0.55	0.00	4.37	37.10				
LDL, mmol/L	6.13	52.80	51.02	48.12				
Aldosterone, pg/mL, log <sub>2</sub>	14.87	97.57	37.00	61.37				
Alkaline phosphatase, µg/L, log <sub>2</sub>	18.72	69.59	45.00	41.58				
ALT, U/L, log <sub>2</sub>	13.77	6.45	46.64	33.73				
AST, U/L, log <sub>2</sub>	25.20	38.93	48.92	35.01				
ET-1, pg/mL, log <sub>2</sub>	88.17	98.91	54.33	78.91				
Ferritin, µg/L, log <sub>2</sub>	21.39	7.54	22.44	32.06				
GGT, U/L, log <sub>2</sub>	19.82	0.00	29.63	12.60				
Glucose, mmol/L, log <sub>2</sub>	33.38	0.00	39.60	30.69				
Hepcidin, nmol/L, log <sub>2</sub>	15.14	0.00	31.56	28.14				
Serum iron, µmol/L, log <sub>2</sub>	97.27	44.53	48.64	56.80				

Phosphate, mmol/L, log2	11.69	6.20	45.80	9.92				
Platelet count, 10 <sup>9</sup> /L, log2	39.72	0.00	32.89	13.96				
pro-ENK, pmol/L, log2	19.38	45.86	55.44	2.08				
Total bilirubin, µmol/L, log2	29.24	77.74	51.63	11.10				
Triglycerides, mmol/L, log2	19.43	99.88	63.15	1.49				
Troponin I, pg/mL, log2	87.54	99.88	74.16	24.89				
Troponin T, pg/mL, log2	91.58	65.33	39.36	11.74				
Urea, mmol/L, log2	26.82	100.00	67.48	7.41				
White blood cell count, 10 <sup>9</sup> /L, log2	27.74	35.77	35.92	10.73				
LVEF, %	43.44	100.00	74.00	67.20				
Male sex	23.39	15.69	0.95	7.04				
Myocardial infarction	10.55	11.68	4.56	1.03				
Peripheral artery disease	13.77	35.64	3.09	18.10				
HF hospitalization in last year	60.46	31.51	10.00	67.73				
PCI	0.00	0.00	2.74	62.84				
Potassium, mmol/L	32.13	0.00	42.90	33.47				
Red blood cell count, 10 <sup>12</sup> /L	58.38	55.35	73.94	34.25				
Systolic blood pressure, mmHg	79.70	100.00	82.09	46.12				
Sodium, mmol/L	59.94	18.98	38.80	48.98				
Stroke	0.48	34.18	0.50	51.57				
Transferrin, g/L	11.82	98.78	51.15	55.01				
ACE2 (Q9BYF1)	20.68	3.28	34.52	6.28	20.89	84.01	8.04	12.32
ADAM-TS13 (Q76LX8)	73.61	89.54	77.92	17.92	37.28	100.00	67.81	34.34
ADM (P35318)	15.22	14.36	34.42	35.24	62.14	46.26	21.05	12.76
AGRP (O00253)	8.47	0.00	39.26	23.60	55.11	0.00	15.20	19.89
AMBP (P02760)	20.70	4.01	29.69	17.96	21.90	0.00	4.51	6.00
ANG-1 (Q15389)	73.47	16.55	53.44	14.80	37.33	82.31	28.27	37.65
BMP-6 (P22004)	5.34	0.00	31.56	7.17	38.45	10.20	6.64	10.14
BNP (P16860)	40.22	100.00	64.25	2.78	91.07	100.00	34.24	14.78

BOC (Q9BWV1)	9.09	0.00	35.21	7.22	34.63	0.00	10.58	11.17
CA5A (P35218)	21.23	60.58	49.41	55.86	21.37	44.05	10.62	51.63
CCL17 (Q92583)	58.79	5.35	40.29	21.09	20.21	0.00	12.70	15.88
CCL3 (P10147)	13.89	0.00	32.77	16.05	29.15	0.00	10.68	8.70
CD40-L (P29965)	46.64	0.00	28.55	29.22	6.83	70.75	17.99	2.21
CD4 (P01730)	14.22	2.92	42.66	3.50	61.43	0.00	8.60	28.32
CD84 (Q9UIB8)	41.36	79.68	46.57	21.65	1.07	0.00	5.76	19.32
CEACAM8 (P31997)	20.56	0.00	38.26	13.63	21.58	90.48	15.93	6.39
CTRC (Q99895)	23.42	1.82	32.04	57.26	18.94	0.00	15.43	12.34
CTSL1 (P07711)	25.30	88.32	70.26	12.33	74.01	6.63	32.67	53.39
CXCL1 (P09341)	52.37	0.00	40.33	16.13	13.36	65.82	14.77	7.28
DCN (P07585)	15.07	0.00	37.38	9.67	62.74	62.76	20.72	52.76
DECR1 (Q16698)	56.74	0.00	42.92	3.47	18.73	4.76	13.80	3.31
Dkk-1 (O94907)	58.17	61.68	45.14	19.01	19.53	43.54	18.43	21.24
FABP2 (P12104)	20.85	14.96	25.54	21.07	21.08	0.00	14.50	24.19
FGF-21 (Q9NSA1)	11.34	22.51	38.16	19.76	32.38	63.44	7.78	1.67
FGF-23 (Q9GZV9)	35.79	59.37	66.85	8.79	85.81	86.39	19.51	15.25
FS (P19883)	8.20	30.41	25.33	35.48	35.17	23.64	8.87	11.57
Gal-9 (O00182)	12.82	36.74	43.82	0.45	59.77	32.14	16.84	19.46
GDF-2 (Q9UK05)	24.38	52.07	41.39	10.63	17.77	53.23	18.46	56.98
GH (P01241)	8.59	25.18	35.78	14.72	55.18	12.93	20.92	13.18
GIF (P27352)	21.72	100.00	100.00	6.74	20.90	100.00	100.00	6.21
GLO1 (Q04760)	49.06	0.00	36.51	14.29	9.66	0.00	12.73	24.40
GT (P51161)	42.66	84.43	56.26	98.66	2.98	54.25	22.09	63.33
HAOX1 (Q9UJM8)	45.03	26.64	45.96	47.31	4.69	0.00	15.16	18.22
HB-EGF (Q99075)	69.94	74.57	46.01	15.32	33.14	57.99	11.59	10.23
HO-1 (P09601)	34.47	100.00	84.72	18.97	5.39	100.00	41.55	34.45
hOSCAR (Q8IYS5)	2.07	0.00	36.14	21.96	43.13	22.45	10.27	6.75
HSP 27 (P04792)	45.42	55.11	26.65	4.00	5.12	55.61	4.47	15.17
IDUA (P35475)	41.63	0.00	43.93	21.36	1.22	0.00	16.58	3.85

IgG Fc receptor II-b (P31994)	15.68	4.14	36.90	44.73	26.62	0.00	25.10	7.43
IL-17D (Q8TAD2)	2.36	23.60	32.95	23.29	42.82	0.00	21.35	18.12
IL-18 (Q14116)	35.24	37.35	22.05	33.30	5.79	77.21	10.69	37.17
IL-1ra (P18510)	33.09	46.23	26.15	33.57	6.68	53.91	20.48	9.98
IL-27 (Q8NEV9)	8.19	100.00	88.73	21.89	55.24	100.00	32.40	32.97
IL-4RA (P24394)	16.76	0.00	40.08	20.38	64.42	0.00	16.52	4.09
IL16 (Q14005)	31.43	9.12	33.46	18.86	9.15	20.75	14.85	7.00
IL1RL2 (Q9HB29)	45.59	50.00	43.89	62.31	5.64	5.95	14.02	4.19
ITGB1BP2 (Q9UKP3)	44.96	1.46	21.81	8.04	5.50	0.00	5.86	3.18
KIM1 (Q96D42)	9.24	28.47	49.61	29.05	55.93	0.00	26.26	25.51
LEP (P41159)	58.79	0.00	45.33	45.77	20.86	29.76	23.16	19.06
LOX-1 (P78380)	57.59	29.93	35.80	45.14	19.31	28.91	24.60	21.76
LPL (P06858)	26.44	56.81	29.09	16.92	14.63	0.00	4.97	3.70
MARCO (Q9UEW3)	55.37	95.74	82.64	55.33	16.31	56.29	30.41	50.99
MERTK (Q12866)	31.76	4.01	59.88	12.56	9.16	75.00	19.88	5.76
MMP-12 (P39900)	7.94	20.44	39.00	30.87	54.87	7.65	22.91	15.28
MMP-7 (P09237)	1.83	24.21	42.91	41.77	47.51	0.00	16.28	18.74
NEMO (Q9Y6K9)	47.31	0.00	26.52	7.12	7.83	61.90	6.36	13.35
PAPPA (Q13219)	47.85	63.02	39.98	56.98	7.82	62.41	27.18	21.52
PAR-1 (P25116)	4.94	12.77	29.16	25.66	39.28	65.14	4.30	0.49
PARP-1 (P09874)	48.92	93.67	34.13	36.63	10.18	0.00	15.99	9.73
PD-L2 (Q9BQ51)	21.46	82.12	55.97	26.38	70.41	0.00	25.91	12.27
PDGF subunit B (P01127)	76.31	39.66	48.99	16.43	39.96	0.00	20.09	47.81
PGF (P49763)	5.40	0.00	39.88	0.00	51.76	0.00	21.21	7.99
PIgR (P01833)	4.22	91.36	46.66	40.96	40.93	51.53	18.48	4.09
PRELP (P51888)	16.57	31.75	36.28	17.06	64.03	0.00	13.78	32.45
PRSS27 (Q9BQR3)	12.85	0.00	39.15	29.95	31.30	4.08	12.98	35.24
PRSS8 (Q16651)	6.31	0.00	41.28	7.82	37.91	0.00	3.89	1.37
PSGL-1 (Q14242)	71.32	0.00	39.73	14.75	35.17	5.95	19.74	10.84
PTX3 (P26022)	12.62	34.67	46.17	15.28	59.30	17.69	16.24	31.33

RAGE (Q15109)	36.85	100.00	62.94	22.60	87.29	100.00	40.25	5.24
REN (P00797)	22.24	0.00	33.69	44.55	20.20	33.33	10.75	12.15
SERPINA12 (Q8IW75)	33.69	65.94	36.37	27.73	7.55	43.88	16.61	18.98
SLAMF7 (Q9NQ25)	7.82	54.26	31.47	25.00	36.50	40.31	25.41	35.44
SOD2 (P04179)	64.87	99.15	51.23	1.33	26.78	97.45	26.14	45.74
SORT1 (Q99523)	38.60	0.00	27.95	13.35	1.19	0.00	0.00	3.57
SPON2 (Q9BUD6)	28.01	89.54	47.40	11.36	77.15	57.31	15.00	17.91
SRC (P12931)	45.42	100.00	51.82	20.46	5.88	45.75	19.09	38.38
STK4 (Q13043)	50.34	0.00	37.16	1.17	11.36	0.00	26.78	19.08
TF (P13726)	1.81	20.92	38.18	21.91	47.03	0.00	12.51	20.00
TGM2 (P21980)	75.54	97.08	61.28	15.45	39.11	86.56	31.31	68.51
THBS2 (P35442)	9.27	40.15	42.44	49.22	34.60	96.26	13.75	25.35
THPO (P40225)	41.41	0.00	29.42	1.80	0.89	0.00	9.75	3.16
TIE2 (Q02763)	36.75	27.49	43.30	14.37	3.31	18.71	24.22	69.77
TM (P07204)	11.99	8.76	43.36	25.34	31.74	64.63	10.16	16.00
TNFRSF10A (O00220)	2.96	0.00	36.43	8.91	48.51	3.06	24.29	35.99
TNFRSF11A (Q9Y6Q6)	13.82	0.00	38.30	12.58	61.11	0.00	20.21	11.27
TNFRSF13B (O14836)	0.40	0.00	28.66	25.32	45.41	0.00	11.27	38.06
TRAIL-R2 (O14763)	34.86	6.20	56.70	21.17	84.71	100.00	50.16	22.06
VEGFD (O43915)	27.34	98.91	83.65	41.04	77.13	100.00	54.89	46.92
VSIG2 (Q96IQ7)	18.44	0.00	65.66	3.25	66.73	0.00	30.72	74.83
XCL1 (P47992)	15.67	39.05	48.75	37.23	63.43	40.14	32.80	42.01
ALCAM (Q13740)	13.51	0.00	33.78	15.64	26.61	0.00	6.66	6.98
AP-N (P15144)	28.77	0.00	25.83	15.12	17.62	0.00	7.95	35.51
AXL (P30530)	10.86	0.00	30.02	14.02	32.52	0.00	7.66	4.00
AZU1 (P20160)	47.39	29.08	38.14	7.92	9.26	5.44	8.64	3.84
BLM hydrolase (Q13867)	49.88	2.92	24.12	24.07	7.39	4.59	2.55	7.35
CASP-3 (P42574)	57.56	25.91	26.30	1.86	14.35	28.23	13.62	14.01
CCL15 (Q16663)	9.95	9.00	29.62	10.43	32.75	7.65	4.06	33.93
CCL16 (O15467)	7.27	15.82	37.57	18.51	32.29	0.00	7.52	26.96

CCL22 (O00626)	33.69	21.78	31.30	1.40	6.42	0.00	5.39	58.01
CCL24 (O00175)	20.94	38.69	46.56	45.86	25.94	52.55	37.97	100.00
CD163 (Q86VB7)	12.83	5.11	31.06	12.18	28.26	21.94	11.07	18.94
CD93 (Q9NPY3)	20.24	38.32	58.31	11.53	61.97	100.00	21.73	5.35
CDH5 (P33151)	26.79	0.00	41.17	11.75	12.90	0.00	13.64	23.66
CHI3L1 (P36222)	24.41	65.45	41.58	18.16	65.29	0.00	25.72	45.34
CHIT1 (Q13231)	41.16	61.56	52.24	52.18	3.46	1.70	4.28	9.16
CNTN1 (Q12860)	34.44	0.00	24.75	11.61	7.64	0.00	12.55	25.67
COL1A1 (P02452)	1.21	0.00	50.21	29.02	41.37	0.00	17.82	39.29
CPA1 (P15085)	25.33	36.74	38.78	38.93	18.96	0.00	13.47	11.58
CPB1 (P15086)	18.94	15.69	51.11	28.97	25.30	0.00	30.75	3.06
CSTB (P04080)	2.59	25.30	52.91	8.02	43.32	12.76	8.59	56.93
CTSD (P07339)	11.30	0.00	31.14	37.39	29.44	0.00	10.65	0.52
CTSZ (Q9UBR2)	18.36	0.00	31.86	1.66	23.31	55.10	17.69	22.51
CXCL16 (Q9H2A7)	10.24	0.00	31.07	0.28	29.87	57.48	5.78	8.88
DLK-1 (P80370)	3.11	0.00	39.52	32.94	35.40	0.00	11.64	2.27
EGFR (P00533)	62.65	0.00	27.38	19.95	16.81	0.00	11.02	28.58
Ep-CAM (P16422)	24.02	63.14	45.90	44.10	20.62	75.00	21.02	35.85
EPHB4 (P54760)	4.87	0.00	32.31	1.80	38.59	0.00	6.83	10.95
FABP4 (P15090)	7.52	0.00	33.94	19.14	46.94	0.00	11.10	36.21
FAS (P25445)	31.48	94.77	53.46	8.06	8.25	3.74	9.06	66.83
Gal-3 (P17931)	20.45	100.00	42.90	16.90	18.56	36.56	25.92	29.59
Gal-4 (P56470)	32.69	18.49	40.12	8.82	10.44	61.39	16.59	41.71
GDF-15 (Q99988)	44.12	25.18	66.27	53.83	86.79	51.70	25.84	54.83
GRN (P28799)	13.58	0.00	43.66	27.01	30.04	100.00	18.36	12.11
ICAM-2 (P13598)	26.34	0.00	41.56	37.07	18.03	0.00	17.18	29.47
IGFBP-1 (P08833)	4.83	31.14	33.04	23.00	36.31	77.21	3.87	59.64
IGFBP-2 (P18065)	14.75	93.31	43.04	39.90	57.58	0.00	15.45	40.70
IGFBP-7 (Q16270)	7.39	0.00	36.76	14.25	46.71	93.54	29.63	9.95
IL-17RA (Q96F46)	47.79	0.00	30.19	2.67	4.42	3.23	14.90	21.44

IL-18BP (O95998)	7.22	15.57	42.72	8.26	51.08	0.00	16.24	2.08
IL-1RT1 (P14778)	5.74	26.28	47.74	15.92	47.34	38.27	13.98	14.00
IL-1RT2 (P27930)	45.20	15.33	38.80	11.31	1.12	64.80	26.83	10.28
IL-6RA (P08887)	40.91	0.00	27.37	7.07	3.02	6.12	13.94	4.79
IL2-RA (P01589)	0.51	3.16	34.23	52.45	46.38	37.07	5.36	13.96
ITGB2 (P05107)	48.12	0.00	47.81	11.48	7.60	9.86	8.51	29.11
JAM-A (Q9Y624)	48.02	76.52	42.87	10.19	5.69	0.00	7.94	4.39
KLK6 (Q92876)	9.69	6.08	20.16	30.00	32.38	24.15	2.06	1.74
LDL receptor (P01130)	75.87	14.48	36.74	17.69	32.01	0.00	19.78	9.40
LTBR (P36941)	6.63	22.38	40.55	16.01	48.78	0.00	9.99	27.41
MB (P02144)	21.39	80.78	40.42	25.60	20.11	100.00	23.54	9.26
MCP-1 (P13500)	15.77	0.00	44.70	3.67	26.94	0.00	12.75	15.18
MEPE (Q9NQ76)	30.80	53.16	41.72	8.32	8.84	0.00	12.57	0.83
MMP-2 (P08253)	14.22	2.80	51.86	43.20	56.53	3.06	20.56	15.02
MMP-3 (P08254)	43.67	60.95	23.82	40.74	3.04	59.01	16.64	48.47
MMP-9 (P14780)	67.57	94.16	50.53	7.08	25.33	53.23	14.91	5.34
MPO (P05164)	25.46	10.95	39.81	18.48	12.35	0.00	12.17	34.79
Notch 3 (Q9UM47)	13.45	0.00	56.64	39.85	55.08	7.48	24.35	11.66
NT-proBNP (NA)	57.39	100.00	99.00	49.27	100.00	100.00	59.82	81.67
OPG (O00300)	9.28	0.00	37.60	4.03	49.36	0.00	13.69	8.65
OPN (P10451)	18.08	0.00	45.13	3.50	63.07	50.68	20.98	15.22
PAI (P05121)	71.87	8.15	27.34	9.87	31.40	0.00	23.80	5.92
PCSK9 (Q8NBP7)	38.96	7.30	27.59	23.04	3.71	0.00	6.08	6.73
PDGF subunit A (P04085)	80.32	11.92	41.83	7.52	38.04	0.00	16.72	9.22
PECAM-1 (P16284)	51.90	23.72	38.30	9.24	9.79	52.89	19.50	21.97
PGLYRP1 (O75594)	0.58	0.00	52.13	76.97	40.80	0.00	6.52	61.78
PI3 (P19957)	16.21	4.01	40.39	5.42	25.48	8.16	16.58	33.25
PLC (P98160)	10.39	24.09	44.52	0.03	49.95	0.00	23.82	22.53
PON3 (Q15166)	62.22	0.00	35.18	21.63	18.65	4.76	7.83	24.52
PRTN3 (P24158)	18.79	12.17	48.42	39.26	21.59	3.74	4.01	34.86

PSP-D (P35247)	17.12	100.00	74.70	19.88	55.58	100.00	46.79	2.88
RARRES2 (Q99969)	26.53	3.28	34.39	30.26	17.67	0.00	9.41	5.99
RETN (Q9HD89)	3.29	91.85	46.33	22.23	40.72	0.00	24.16	23.31
SCGB3A2 (Q96PL1)	1.78	0.00	43.36	31.50	46.15	0.00	19.74	4.63
SELE (P16581)	50.83	5.72	27.64	21.14	6.60	4.76	19.45	25.01
SELP (P16109)	55.86	52.55	22.29	27.52	15.10	0.00	7.12	5.68
SHPS-1 (P78324)	11.99	0.00	40.48	6.58	37.82	0.00	6.70	8.32
SPON1 (Q9HCB6)	17.40	10.71	61.88	21.84	58.58	0.00	27.27	20.63
ST2 (Q01638)	22.81	84.55	47.69	4.58	64.68	10.71	29.19	60.88
t-PA (P00750)	44.38	72.75	41.45	38.59	5.00	0.00	20.25	3.15
TFF3 (Q07654)	29.19	17.27	44.78	13.90	70.55	4.59	19.39	2.98
TFPI (P10646)	51.75	98.18	36.11	7.05	14.56	94.05	8.06	24.96
TIMP4 (Q99727)	7.65	0.00	33.12	32.09	31.31	11.56	3.47	8.72
TLT-2 (Q5T2D2)	34.56	0.00	23.85	4.04	9.37	0.00	6.70	3.14
TNF-R1 (P19438)	10.65	0.00	27.10	20.12	51.73	60.54	4.00	26.55
TNF-R2 (P20333)	9.35	0.00	39.87	18.69	52.83	0.00	10.51	1.43
TNFRSF10C (O14798)	13.89	0.00	26.25	29.74	28.37	0.00	14.51	30.50
TNFRSF14 (Q92956)	4.21	0.00	35.79	12.55	37.25	0.00	14.21	3.97
TNFSF13B (Q9Y275)	8.69	0.00	40.21	36.80	50.69	62.41	19.02	13.90
TR-AP (P13686)	61.86	100.00	48.97	8.25	13.62	59.01	32.21	39.79
TR (P02786)	19.78	37.83	44.85	26.50	65.26	38.78	28.95	14.91
U-PAR (Q03405)	16.88	0.00	44.79	9.87	56.91	0.00	7.90	1.42
uPA (P00749)	27.80	0.00	27.45	21.97	12.77	61.39	22.36	6.88
vWF (P04275)	29.96	36.13	53.75	10.86	7.60	14.97	22.38	14.37
ARNT (P27540)	27.98	47.08	53.63	35.78	12.61	0.00	19.15	5.17
BACH1 (O14867)	36.92	33.33	24.93	49.48	3.07	0.00	9.82	9.52
BIRC2 (Q13490)	39.82	6.57	35.71	10.61	0.00	3.74	9.74	2.04
BTN3A2 (P78410)	2.21	0.00	38.23	7.00	48.13	65.14	7.98	51.68
CCL11 (P51671)	34.06	44.04	31.27	19.29	6.83	55.95	14.52	29.16
CD28 (P10747)	24.51	49.76	37.13	33.05	17.39	27.55	11.79	24.97

CD83 (Q01151)	7.14	0.00	41.42	3.58	53.80	66.16	9.97	18.79
CDSN (Q15517)	2.00	0.00	47.43	30.03	47.56	0.00	15.97	9.89
CKAP4 (Q07065)	21.04	9.12	58.65	19.98	69.25	11.22	36.84	30.33
CLEC4A (Q9UMR7)	78.74	12.77	51.92	47.75	43.60	65.99	28.74	14.26
CLEC4C (Q8WTT0)	57.26	68.00	42.69	0.03	19.40	77.72	13.92	7.96
CLEC4D (Q8WXI8)	9.84	97.45	31.86	51.70	34.01	0.00	10.96	28.36
CLEC4G (Q6UXB4)	15.91	0.00	49.55	12.25	27.23	33.67	20.43	1.67
CLEC6A (Q6EIG7)	15.02	68.25	40.17	27.60	62.93	100.00	20.53	10.24
CLEC7A (Q9BXN2)	9.99	59.85	44.11	35.99	56.99	70.58	16.25	24.22
CNTNAP2 (Q9UHC6)	5.91	100.00	66.94	39.70	52.32	100.00	42.37	4.68
CXADR (P78310)	14.74	0.00	31.58	41.00	61.91	77.38	18.23	0.77
CXCL12 (P48061)	42.87	100.00	80.99	27.26	2.41	100.00	35.27	0.63
DAPP1 (Q9UN19)	53.22	0.00	34.19	14.26	14.25	0.00	9.95	7.64
DCBLD2 (Q96PD2)	22.21	28.22	57.95	3.36	20.33	0.00	24.40	36.60
DCTN1 (Q14203)	59.82	44.89	32.18	44.03	21.77	49.66	11.91	34.39
DDX58 (O95786)	51.78	61.07	30.87	36.49	13.04	32.82	8.44	13.71
DFFA (O00273)	48.37	20.19	31.32	4.25	8.86	0.00	15.45	13.80
DGKZ (Q13574)	45.81	20.32	30.31	8.34	5.59	22.96	12.21	14.58
DPP10 (Q8N608)	25.69	100.00	60.69	16.95	15.90	100.00	44.02	1.66
EDAR (Q9UNE0)	53.66	54.99	37.93	24.67	15.06	45.24	19.65	29.33
EGLN1 (Q9GZT9)	29.33	96.11	35.28	18.14	11.78	80.78	12.63	13.81
EIF4G1 (Q04637)	47.12	56.45	42.78	4.16	7.35	93.37	10.61	4.93
EIF5A (P63241)	18.31	0.00	32.01	11.01	24.18	5.61	6.65	8.82
FAM3B (P58499)	23.36	98.30	68.09	37.54	72.26	85.20	31.43	28.48
FCRL3 (Q96P31)	9.68	64.60	41.66	69.84	34.93	69.22	26.33	13.02
FCRL6 (Q6DN72)	16.94	9.12	49.76	0.07	26.19	7.31	21.91	2.96
FGF2 (P09038)	53.59	17.15	20.05	15.81	14.72	0.00	15.19	10.77
FXYD5 (Q96DB9)	31.91	45.74	22.86	38.57	9.09	42.18	5.78	44.37
GALNT3 (Q14435)	26.33	0.00	23.70	1.08	15.72	21.94	13.57	34.82
GLB1 (P16278)	60.67	55.23	24.22	0.38	21.96	88.10	10.84	8.87

HCLS1 (P14317)	49.49	0.00	18.12	19.73	9.87	0.00	9.72	0.75
HEXIM1 (O94992)	44.83	0.00	29.52	8.28	4.77	14.12	14.37	4.99
HNMT (P50135)	8.78	25.30	25.95	7.91	34.77	0.00	2.44	13.93
HSD11B1 (P28845)	37.51	0.00	52.97	9.73	2.44	31.80	15.13	32.52
ICA1 (Q05084)	47.57	0.00	24.06	30.58	7.99	0.00	5.12	19.60
IFNLR1 (Q8IU57)	39.47	11.68	31.74	8.24	0.49	0.00	10.25	4.94
IL10 (P22301)	31.93	18.61	45.30	90.45	9.20	100.00	24.74	48.76
IL12RB1 (P42701)	20.16	0.00	66.65	35.59	68.69	76.70	29.94	79.40
IL5 (P05113)	33.21	5.84	39.13	4.13	8.36	15.99	13.86	5.80
IRAK1 (P51617)	49.08	0.00	33.58	28.58	9.91	0.00	9.61	5.09
IRAK4 (Q9NWZ3)	48.90	0.00	32.00	21.73	9.57	0.00	8.85	27.24
IRF9 (Q00978)	41.27	2.55	22.60	36.86	0.14	76.87	6.89	21.70
ITGA11 (Q9UKX5)	55.45	27.25	41.77	22.21	17.01	3.40	18.74	86.99
ITGA6 (P23229)	56.13	0.00	30.83	13.34	17.50	4.59	10.90	2.43
ITGB6 (P18564)	17.55	47.81	44.67	4.80	25.52	41.33	17.99	45.51
ITM2A (O43736)	5.27	100.00	70.17	43.97	51.37	100.00	27.95	30.27
JUN (P05412)	42.41	96.84	73.55	37.01	2.15	99.66	31.45	51.92
KLRD1 (Q13241)	22.23	0.00	30.12	48.52	20.43	10.71	16.54	6.03
KPNA1 (P52294)	23.75	25.43	47.54	33.96	17.55	49.32	24.83	6.50
KRT19 (P08727)	12.64	63.87	36.77	52.72	30.56	30.10	6.59	35.68
LAG3 (P18627)	1.98	95.50	31.08	25.04	42.59	66.67	14.43	2.88
LAMP3 (Q9UQV4)	10.04	38.81	48.77	0.27	34.13	0.00	23.39	21.78
LILRB4 (Q8NHJ6)	14.04	0.00	60.60	54.10	61.73	0.00	33.31	41.59
LY75 (O60449)	23.25	28.95	53.56	17.85	18.24	89.63	33.20	5.93
MASP1 (P48740)	31.90	0.00	23.00	8.99	8.78	0.00	14.31	89.32
MGMT (P16455)	49.66	0.00	27.35	5.42	10.31	3.91	14.89	26.00
MILR1 (Q7Z6M3)	12.00	0.00	55.31	17.13	31.13	95.41	31.05	34.99
NCR1 (O76036)	1.15	0.00	47.43	23.40	43.52	0.00	14.98	0.55
NF2 (P35240)	60.28	0.00	49.02	13.22	22.20	0.00	12.98	16.23
NFATC3 (Q12968)	51.17	98.42	52.89	0.89	11.32	76.36	21.73	15.95

NTF4 (P34130)	36.81	0.00	36.00	8.74	3.86	0.00	13.88	0.11
PADI2 (Q9Y2J8)	47.13	0.00	27.09	17.62	7.56	33.50	1.73	45.11
PIK3AP1 (Q6ZUJ8)	68.23	0.00	27.98	30.08	31.17	0.00	14.80	15.75
PLXNA4 (Q9HCM2)	55.00	58.76	21.45	13.32	16.17	53.06	6.33	12.06
PPP1R9B (Q96SB3)	55.09	0.00	31.11	3.71	16.37	0.00	6.45	17.77
PRDX1 (Q06830)	66.75	16.91	49.43	14.61	29.50	71.09	15.41	20.81
PRDX3 (P30048)	43.15	0.00	22.27	18.72	2.48	97.96	11.33	4.24
PRDX5 (P30044)	50.75	0.00	30.12	15.11	11.67	0.00	5.36	5.55
PRKCQ (Q04759)	58.82	91.00	35.11	45.04	20.34	50.17	16.56	38.52
PSIP1 (O75475)	30.22	4.38	25.66	8.88	10.01	0.00	6.70	8.38
PTH1R (Q03431)	42.71	11.56	37.55	85.53	2.68	99.66	11.47	51.23
SH2B3 (Q9UQQ2)	49.13	0.00	34.94	14.47	10.06	100.00	12.39	17.18
SH2D1A (O60880)	29.78	0.00	32.35	15.32	11.09	11.56	6.61	5.00
SIT1 (Q9Y3P8)	59.41	0.00	25.06	15.28	20.74	0.00	4.79	30.35
SPRY2 (O43597)	51.80	72.14	36.80	28.38	12.94	100.00	8.59	23.50
SRPK2 (P78362)	53.59	18.86	29.95	6.37	14.60	0.00	3.58	11.44
STC1 (P52823)	8.07	3.04	61.91	16.32	55.37	14.46	16.68	29.35
TANK (Q92844)	31.94	0.00	31.97	18.45	9.19	19.05	13.77	60.05
TPSAB1 (Q15661)	17.09	100.00	25.32	4.82	26.25	100.00	10.27	0.16
TRAF2 (Q12933)	50.48	0.00	27.44	1.26	11.49	6.63	15.21	19.48
TREM1 (Q9NP99)	9.71	36.50	49.40	28.48	55.93	0.00	11.37	2.57
TRIM21 (P19474)	46.54	59.00	37.04	38.69	6.82	18.20	8.08	6.09
TRIM5 (Q9C035)	33.50	0.00	22.29	28.85	6.63	0.00	6.45	10.45
ZBTB16 (Q05516)	54.01	2.80	24.44	7.54	15.15	0.00	8.71	4.87
5-NT (P21589)	22.30	3.89	36.41	27.65	18.50	46.26	24.92	40.05
ABL1 (P00519)	30.46	0.00	19.32	11.41	9.20	0.00	3.00	26.79
ADAM-TS 15 (Q8TE58)	10.59	59.85	54.91	5.96	56.67	83.84	21.24	33.22
ADAM8 (P78325)	1.25	80.78	44.33	15.17	45.68	6.97	8.70	20.53
ANXA1 (P04083)	28.25	32.60	28.57	19.62	12.00	15.82	15.84	0.98
AREG (P15514)	34.74	100.00	76.67	43.98	84.09	99.32	30.63	61.11

CAIX (Q16790)	0.12	23.72	36.75	4.39	44.48	0.00	18.27	30.67
CD160 (O95971)	8.99	0.00	25.15	18.81	55.01	27.04	13.59	2.06
CD207 (Q9UJ71)	1.57	56.33	40.61	24.73	42.60	28.74	11.02	51.62
CD27 (P26842)	17.95	60.58	36.05	10.42	65.15	41.67	11.45	2.27
CD48 (P09326)	0.70	0.00	29.83	23.32	45.80	0.00	9.17	16.93
CD70 (P32970)	27.77	5.60	17.88	4.73	12.64	4.59	13.14	71.23
CDKN1A (P38936)	48.86	0.00	28.66	9.46	9.91	0.00	2.55	0.62
CEACAM1 (P13688)	48.99	9.25	50.83	44.06	9.91	24.83	28.38	33.28
CEACAM5 (P06731)	24.61	25.43	66.25	4.92	15.70	69.22	26.40	14.80
CPE (P16870)	18.96	6.93	35.31	21.48	23.09	0.00	8.85	16.67
CRNN (Q9UBG3)	24.54	67.88	30.66	1.32	16.71	0.00	13.45	4.45
CTSV (O60911)	54.94	0.00	31.11	32.00	16.32	0.00	9.64	16.92
CXCL13 (O43927)	17.36	53.77	50.67	34.77	64.84	43.54	21.75	19.77
CXL17 (Q6UXB2)	18.64	99.39	66.62	7.17	65.94	3.23	28.15	14.88
CYR61 (O00622)	10.81	45.86	26.50	21.03	32.05	12.41	4.04	24.16
DLL1 (O00548)	22.99	74.70	52.42	14.14	70.89	30.95	29.90	13.90
EGF (P01133)	57.03	4.74	31.88	1.82	19.18	0.00	15.15	11.38
EPHA2 (P29317)	30.86	100.00	87.61	52.14	79.50	100.00	46.70	21.30
ERBB2 (P04626)	48.29	55.72	33.28	42.81	9.34	4.76	22.02	1.88
ERBB3 (P21860)	54.25	0.00	36.84	11.61	15.91	0.00	15.96	5.77
ERBB4 (Q15303)	13.19	41.36	32.06	2.77	29.26	28.23	11.98	3.58
ESM-1 (Q9NQ30)	24.21	94.77	64.58	7.18	72.35	59.69	33.04	67.67
FADD (Q13158)	54.39	0.00	31.69	8.74	16.33	31.97	10.84	3.95
FASLG (P48023)	48.33	5.23	25.14	63.16	8.97	0.00	7.89	6.52
FCRLB (Q6BAA4)	3.16	12.41	47.71	14.56	48.94	56.12	23.39	18.68
FGF-BP1 (Q14512)	8.35	61.07	48.96	32.95	35.19	60.03	23.34	26.94
FR-alpha (P15328)	26.46	3.65	52.72	5.77	74.57	0.00	21.25	11.67
FR-gamma (P41439)	44.93	75.67	33.82	40.15	5.50	99.15	22.46	65.48
FURIN (P09958)	36.34	0.00	34.71	22.83	2.89	0.00	13.88	0.00
Gal-1 (P09382)	14.44	0.00	34.71	16.32	27.76	0.00	18.61	36.00

GPC1 (P35052)	10.17	3.28	40.35	11.59	33.17	48.47	21.79	18.52
GPNMB (Q14956)	10.02	6.20	40.00	12.73	55.86	67.01	14.80	25.33
GZMB (P10144)	49.38	66.06	28.81	6.37	10.88	72.96	23.14	27.53
GZMH (P20718)	37.64	0.00	37.88	14.43	1.78	18.37	9.23	50.03
HGF (P14210)	11.79	62.90	47.47	5.31	58.90	16.84	17.99	56.03
hK11 (Q9UBX7)	23.75	4.14	36.85	19.46	71.51	0.00	16.10	2.86
hK14 (Q9P0G3)	16.59	0.00	33.14	11.96	26.47	11.22	11.21	42.63
hK8 (O60259)	10.25	71.90	26.04	16.37	32.65	0.00	14.89	13.60
ICOSLG (O75144)	11.64	0.00	37.25	53.43	32.16	0.00	12.70	54.90
IFN-gamma-R1 (P15260)	23.84	70.07	47.46	25.47	71.84	36.05	15.35	6.55
IGF1R (P08069)	15.37	0.00	30.60	6.51	62.02	0.00	6.00	28.32
IL6 (P05231)	7.19	0.00	35.88	36.67	53.10	16.84	18.63	26.32
ITGAV (P06756)	46.05	0.00	22.96	32.44	6.79	0.00	13.39	21.01
ITGB5 (P18084)	15.65	7.54	29.22	3.16	26.45	3.06	19.86	19.58
KLK13 (Q9UKR3)	18.85	0.00	50.62	65.23	23.26	88.78	19.08	10.73
LY9 (Q9HBG7)	2.47	2.07	49.34	26.63	41.95	0.00	21.70	2.74
LYN (P07948)	52.96	0.00	22.24	22.99	14.81	9.69	10.83	12.80
LYPD3 (O95274)	26.56	0.00	37.38	48.80	15.77	25.68	19.24	55.04
MAD homolog 5 (Q99717)	40.97	15.45	26.74	66.14	0.70	25.34	12.43	24.53
MetAP 2 (P50579)	49.13	0.00	36.42	31.46	10.68	0.00	24.26	18.19
MIA (Q16674)	14.83	100.00	50.62	9.43	28.54	69.56	37.20	24.97
MIC-A/B (Q29983)	6.10	48.30	49.61	36.38	37.71	61.73	21.50	21.28
MK (P21741)	3.11	17.52	46.62	13.26	48.44	0.00	19.42	19.24
MSLN (Q13421)	3.36	39.05	46.29	5.29	48.92	34.86	14.04	39.65
MUC-16 (Q8WXI7)	14.04	0.00	62.63	14.96	60.41	30.10	19.00	10.20
PODXL (O00592)	46.80	87.47	32.11	26.49	6.78	51.70	17.64	33.28
PPY (P01298)	23.33	12.04	53.38	45.15	18.45	59.01	21.10	68.12
PVRL4 (Q96NY8)	7.77	79.81	38.55	19.92	53.28	57.31	12.65	15.79
RET (P07949)	51.61	54.26	25.52	2.22	12.70	100.00	13.71	0.97
RSPO3 (Q9BXY4)	19.60	0.00	71.13	45.56	66.75	23.81	24.64	69.16

S100A11 (P31949)	15.49	0.00	35.62	30.92	26.63	28.57	22.17	0.17
S100A4 (P26447)	58.59	15.57	43.95	10.85	21.35	18.88	23.72	54.17
SCAMP3 (O14828)	37.18	5.35	39.36	8.56	2.09	26.70	4.34	11.00
SCF (P21583)	43.22	4.87	31.46	4.84	3.33	100.00	18.58	43.95
SEZ6L (Q9BYH1)	5.18	8.64	41.62	9.58	50.18	15.82	18.69	17.51
SPARC (P09486)	61.19	0.00	28.08	7.47	23.71	69.90	14.95	3.04
SYND1 (P18827)	15.83	0.00	44.72	27.26	62.74	77.38	10.37	32.39
TCL1A (P56279)	54.60	0.00	27.01	13.14	15.75	0.00	12.71	46.53
TFPI-2 (P48307)	15.79	100.00	52.26	25.76	62.35	100.00	29.07	1.97
TGF-alpha (P01135)	16.68	9.25	38.37	17.68	63.81	0.00	10.16	12.68
TGFR-2 (P37173)	21.03	5.35	52.31	0.76	68.49	0.00	20.42	13.55
TLR3 (O15455)	49.17	0.00	45.95	59.97	9.30	0.00	16.95	15.05
TNFRSF19 (Q9NS68)	23.67	0.00	57.23	25.39	71.51	0.00	36.36	12.04
TNFRSF4 (P43489)	33.38	78.95	79.67	56.05	83.28	94.39	37.53	42.27
TNFRSF6B (O95407)	19.25	0.00	43.19	13.56	66.44	15.14	24.76	3.14
TNFSF13 (O75888)	21.66	73.11	45.02	13.67	69.18	0.00	20.09	49.46
TRAIL (P50591)	60.76	41.36	32.39	21.05	22.80	85.71	12.96	33.06
TXLNA (P40222)	42.02	32.73	26.55	7.58	2.44	0.00	8.82	15.25
VEGFA (P15692)	11.50	0.00	30.07	5.80	57.94	59.18	11.95	20.53
VEGFR-2 (P35968)	58.12	4.99	38.80	12.34	19.29	43.20	7.58	33.34
VEGFR-3 (P35916)	25.70	0.00	40.53	46.38	16.03	49.49	20.24	8.46
VIM (P08670)	5.25	100.00	28.15	30.84	49.92	98.30	7.88	44.45
WFDC2 (Q14508)	38.83	86.37	63.08	18.95	88.70	80.95	35.62	18.05
WIF-1 (Q9Y5W5)	8.81	62.65	45.23	9.38	34.40	0.00	22.35	5.80
WISP-1 (O95388)	36.75	5.11	58.40	38.63	86.36	4.42	21.61	31.29
XPNPEP2 (O43895)	67.63	75.30	58.62	48.66	31.05	0.00	19.11	38.91

**Supplementary Table 11. Overview over baseline candidate parameters considered in backwards selection for each endpoint. Numbers indicate if parameter was considered as candidate for the corresponding multivariable model (Models 1, 2, or 3). Further noted are non-linear transformations used in each case.**

Candidates	N (% missing) in Index Cohort	Inpatient vs. Outpatient status	Death through Day 180 in Inpatients	Death through Day 180 in Outpatients	HF re-admission through Day 180 in Inpatients	HF re-admission through Day 180 in Outpatients
<i>Medical history</i>						
Ischemic heart disease	2243 (10.9%)		1,2,3	1,2,3	1,2,3	1,2,3
HF hospitalization in last year	2516 (0.0%)		1,2,3	1,2,3	1,2,3	1,2,3
Hypertension	2516 (0.0%)		1,2,3	1,2,3	1,2,3	1,2,3
Atrial fibrillation	2516 (0.0%)		1,2,3	1,2,3	1,2,3	1,2,3
Myocardial infarction	2516 (0.0%)		1,2,3	1,2,3	1,2,3	1,2,3
PCI	2516 (0.0%)		1,2,3	1,2,3	1,2,3	1,2,3
CABG	2516 (0.0%)		1,2,3	1,2,3	1,2,3	1,2,3
Diabetes mellitus	2516 (0.0%)		1,2,3	1,2,3	1,2,3	1,2,3
COPD	2516 (0.0%)		1,2,3	1,2,3	1,2,3	1,2,3
Peripheral artery disease	2516 (0.0%)		1,2,3	1,2,3	1,2,3	1,2,3
Stroke	2516 (0.0%)		1,2,3	1,2,3	1,2,3	1,2,3
<i>Local patient characteristics, vital signs, and lab parameters</i>						
Male sex	2516 (0.0%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Age	2516 (0.0%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Left ventricular ejection fraction	2243 (10.9%)	1,2,3	1,2,3	1,2,3 Linear spline	1,2,3	1,2,3
Systolic blood pressure	2511 (0.2%)	1,2,3	1,2,3 Linear spline	1,2,3	1,2,3	1,2,3 Cubic

Candidates	N (% missing) in Index Cohort	Inpatient vs. Outpatient status	Death through Day 180 in Inpatients	Death through Day 180 in Outpatients	HF re-admission through Day 180 in Inpatients	HF re-admission through Day 180 in Outpatients
Diastolic blood pressure	2511 (0.2%)	1,2,3 Linear spline	1,2,3	1,2,3	1,2,3	1,2,3
Heart rate	2510 (0.2%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Body mass index	2478 (1.5%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3 Linear spline
White blood cell count, log2	2066 (17.9%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Red blood cell count	1813 (27.9%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Platelets, log2	2041 (18.9%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Hemoglobin	2293 (8.9%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Urea, log2	2083 (17.2%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Estimated GFR (CKD-EPI)	2360 (6.2%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Sodium	2327 (7.5%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Potassium	2324 (7.6%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Total bilirubin, log2	1380 (45.2%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Glucose, log2	1894 (24.7%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
AST, log2	1598 (36.5%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
ALT, log2	1804 (28.3%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
GGT, log2	1151 (54.3%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
ALP, log2	1208 (52.0%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
HDL	1166 (53.7%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
LDL	1103 (56.2%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Triglycerides, log2	1309 (48.0%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
<i>Central lab parameters</i>						

Candidates	N (% missing) in Index Cohort	Inpatient vs. Outpatient status	Death through Day 180 in Inpatients	Death through Day 180 in Outpatients	HF re-admission through Day 180 in Inpatients	HF re-admission through Day 180 in Outpatients
Phosphate, log2	2359 (6.2%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Albumin	2361 (6.2%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Serum iron, log2	2361 (6.2%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Ferritin, log2	2359 (6.2%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Transferrin	2360 (6.2%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Hepcidin, log2	2367 (5.9%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
sTfR, log2	2332 (7.3%)	1,2	1,2,3	1,2,3	1,2,3	1,2,3
Aldosterone, log2	2302 (8.5%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3 Linear spline
Renin, log2	2225 (11.6%)	1,2,3	1,2,3	1,2,3	1,2	1,2,3
FGF23, log2	2399 (4.7%)	1,2	1,2	1,2,3	1,2	1,2,3
Troponin T, log2	2309 (8.2%)	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
NT-proBNP, log2	2294 (8.8%)	1,2,3	1,2	1,2,3	1,2	1,2
GDF-15, log2	2279 (9.4%)	1,2	1,2,3	1,2,3	1,2,3	1,2,3
<i>Singlex parameters</i>						
Troponin I, log2	2352 (6.5%)	2,3	2,3	2,3	2,3	2,3
ET-1, log2	2346 (6.8%)	2,3	2,3	2,3	2,3	2,3
pro-ENK, log2	2180 (13.4%)	2,3	2,3	2,3	2,3	2,3
bio-ADM, log2	2179 (13.4%)	2	2,3	2,3	2	2,3
IL-6, log2	2329 (7.4%)	2	2	2,3	2,3	2,3
CA125, log2	2089 (17.0%)	2	2,3	2,3	2,3	2,3
<i>Olink parameters (Uniprot ID)</i>						
ADM (P35318)	2032 (19.2%)	3			3	

Candidates	N (% missing) in Index Cohort	Inpatient vs. Outpatient status	Death through Day 180 in Inpatients	Death through Day 180 in Outpatients	HF re-admission through Day 180 in Inpatients	HF re-admission through Day 180 in Outpatients
BOC (Q9BWV1)	2032 (19.2%)	3	3			
IL-1ra (P18510)	2032 (19.2%)	3				
TRAIL-R2 (O14763)	2032 (19.2%)	3				3 Cubic
FGF-21 (Q9NSA1)	2032 (19.2%)	3				
FGF-23 (Q9GZV9)	2032 (19.2%)	3	3		3	
SPON2 (Q9BUD6)	2032 (19.2%)	3				
GH (P01241)	2032 (19.2%)	3				
SERPINA12 (Q8IW75)	2032 (19.2%)	3				
IL16 (Q14005)	2032 (19.2%)	3 Linear spline				
PTX3 (P26022)	2032 (19.2%)	3				
CCL3 (P10147)	2032 (19.2%)	3				
AGRP (O00253)	2032 (19.2%)	3				
FABP2 (P12104)	2032 (19.2%)	3				
MARCO (Q9UEW3)	2032 (19.2%)	3				
BNP (P16860)	2032 (19.2%)	3	3		3	3
ACE2 (Q9BYF1)	2032 (19.2%)	3				
CTSL1 (P07711)	2032 (19.2%)	3		3		
FABP4 (P15090)	2174 (13.6%)	3				
TR (P02786)	2174 (13.6%)	3				
GDF-15 (Q99988)	2174 (13.6%)	3				
FAS (P25445)	2174 (13.6%)	3				

Candidates	N (% missing) in Index Cohort	Inpatient vs. Outpatient status	Death through Day 180 in Inpatients	Death through Day 180 in Outpatients	HF re-admission through Day 180 in Inpatients	HF re-admission through Day 180 in Outpatients
OPN (P10451)	2174 (13.6%)	3				
uPA (P00749)	2174 (13.6%)	3 Linear spline				
ST2 (Q01638)	2174 (13.6%)	3	3			
MMP-3 (P08254)	2174 (13.6%)	3				
CLEC4G (Q6UXB4)	2035 (19.1%)	3				
IFNLR1 (Q8IU57)	2035 (19.1%)	3 Linear spline				
ITGA11 (Q9UKX5)	2035 (19.1%)	3				
ITGB6 (P18564)	2035 (19.1%)	3				
KLK13 (Q9UKR3)	2036 (19.1%)	3				
CEACAM1 (P13688)	2036 (19.1%)	3				
TNFSF13 (O75888)	2036 (19.1%)	3	3			
SYND1 (P18827)	2036 (19.1%)	3				
IL6 (P05231)	2036 (19.1%)	3	3 Cubic			
ITGAV (P06756)	2036 (19.1%)	3				
GPC1 (P35052)	2036 (19.1%)	3				
TFPI-2 (P48307)	2036 (19.1%)	3				3
SCF (P21583)	2036 (19.1%)	3				
CYR61 (O00622)	2036 (19.1%)	3 Linear spline				
ITGB5 (P18084)	2036 (19.1%)	3				

Candidates	N (% missing) in Index Cohort	Inpatient vs. Outpatient status	Death through Day 180 in Inpatients	Death through Day 180 in Outpatients	HF re-admission through Day 180 in Inpatients	HF re-admission through Day 180 in Outpatients
GPNMB (Q14956)	2036 (19.1%)	3				
HGF (P14210)	2035 (19.1%)	3				
MK (P21741)	2036 (19.1%)	3				
FGF-BP1 (Q14512)	2036 (19.1%)	3				
TLR3 (O15455)	2036 (19.1%)	3				
RET (P07949)	2036 (19.1%)	3				
PPY (P01298)	2036 (19.1%)	3				
MAD homolog 5 (Q99717)	2036 (19.1%)	3				
MUC-16 (Q8WXI7)	2036 (19.1%)	3				
THBS2 (P35442)	2032 (19.2%)		3			
DCN (P07585)	2032 (19.2%)		3			
TFF3 (Q07654)	2174 (13.6%)		3			
NT-proBNP (NA)	2174 (13.6%)		3		3 Linear spline	3
KRT19 (P08727)	2035 (19.1%)		3 Linear spline			
TREM1 (Q9NP99)	2035 (19.1%)		3			
PIK3AP1 (Q6ZUJ8)	2035 (19.1%)		3			
MSLN (Q13421)	2036 (19.1%)		3			
EGF (P01133)	2036 (19.1%)		3			
IGF1R (P08069)	2036 (19.1%)		3			
TCL1A (P56279)	2036 (19.1%)		3			
AREG (P15514)	2036 (19.1%)		3			3

Candidates	N (% missing) in Index Cohort	Inpatient vs. Outpatient status	Death through Day 180 in Inpatients	Death through Day 180 in Outpatients	HF re-admission through Day 180 in Inpatients	HF re-admission through Day 180 in Outpatients
WFDC2 (Q14508)	2036 (19.1%)		3	3		
FCRLB (Q6BAA4)	2036 (19.1%)		3			
IDUA (P35475)	2032 (19.2%)			3		
MMP-12 (P39900)	2032 (19.2%)			3		
HAOX1 (Q9UJM8)	2032 (19.2%)			3		
CNTN1 (Q12860)	2174 (13.6%)			3		
SCGB3A2 (Q96PL1)	2174 (13.6%)			3		
CXCL12 (P48061)	2035 (19.1%)			3		3 Linear spline
ERBB4 (Q15303)	2036 (19.1%)			3		
CXL17 (Q6UXB2)	2036 (19.1%)			3		
SLAMF7 (Q9NQ25)	2032 (19.2%)				3	
PAR-1 (P25116)	2032 (19.2%)				3	
RAGE (Q15109)	2032 (19.2%)				3	3
REN (P00797)	2032 (19.2%)				3	
KIM1 (Q96D42)	2032 (19.2%)				3	
PSGL-1 (Q14242)	2032 (19.2%)				3	
GT (P51161)	2032 (19.2%)				3	
HSP 27 (P04792)	2032 (19.2%)				3	
VEGFD (O43915)	2032 (19.2%)				3	3
TNFSF13B (Q9Y275)	2174 (13.6%)				3	
CNTNAP2 (Q9UHC6)	2035 (19.1%)				3	3
LILRB4 (Q8NHJ6)	2035 (19.1%)				3	

Candidates	N (% missing) in Index Cohort	Inpatient vs. Outpatient status	Death through Day 180 in Inpatients	Death through Day 180 in Outpatients	HF re-admission through Day 180 in Inpatients	HF re-admission through Day 180 in Outpatients
IL5 (P05113)	2035 (19.1%)				3	
hK11 (Q9UBX7)	2036 (19.1%)				3	
CD70 (P32970)	2036 (19.1%)				3	
WIF-1 (Q9Y5W5)	2036 (19.1%)				3	
ADAM-TS13 (Q76LX8)	2032 (19.2%)					3
IL-27 (Q8NEV9)	2032 (19.2%)					3
GIF (P27352)	2032 (19.2%)					3 Linear spline
HO-1 (P09601)	2032 (19.2%)					3
PSP-D (P35247)	2174 (13.6%)					3
DPP10 (Q8N608)	2035 (19.1%)					3
ITM2A (O43736)	2035 (19.1%)					3
LY75 (O60449)	2035 (19.1%)					3
JUN (P05412)	2035 (19.1%)					3
EPHA2 (P29317)	2036 (19.1%)					3
TNFRSF4 (P43489)	2036 (19.1%)					3

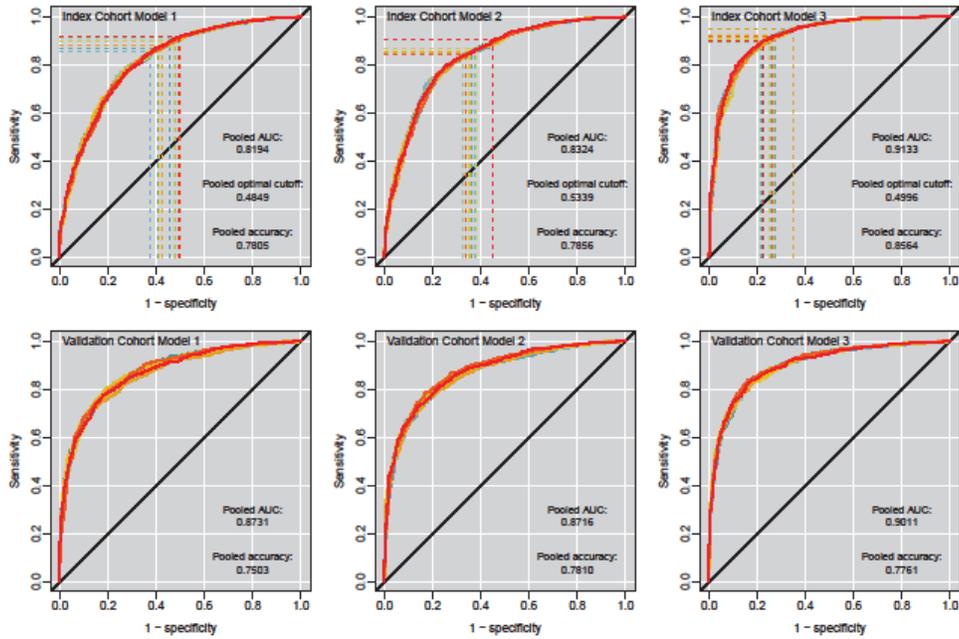
**Supplementary Table 12. Inpatients model for Death through Day 180 applied to Outpatients**

		<b>Multivariable Model 3</b> <b>Local, central, Singulex, and Olink data</b>	
<b>Parameter</b>	<b>Effect size for a change of</b>	<b>Hazard ratio (95% CI)</b>	<b>P-value</b>
IL6 (P05231)	1	1.26 (0.97, 1.62)	0.0805
KRT19 (P08727)	1	1.60 (1.04, 2.47)	0.0363
DCN (P07585)	1	0.41 (0.12, 1.41)	0.1616
Renin, $\mu\text{U/mL}$ , log2	Doubling	1.11 (0.95, 1.30)	0.1791
Systolic blood pressure, mmHg	10	0.90 (0.75, 1.08)	0.2709
Hemoglobin, g/dL	1	0.87 (0.72, 1.04)	0.1289
Age, years	5	1.24 (1.02, 1.51)	0.0351
ET-1, pg/mL, log2	Doubling	1.71 (0.87, 3.37)	0.1256
Pooled C-index in Index Cohort		0.7524	
C-index of final model in Index Cohort		0.7464	
<i>Results from Cox proportional hazards regression model.</i>			

**Supplementary table 13. Inpatients model for HF re-admission through Day 180 applied to Outpatients**

		<b>Multivariable Model 3</b> <b>Local, central, Singulex, and Olink data</b>	
<b>Parameter</b>	<b>Effect size for a change of</b>	<b>Hazard ratio (95% CI)</b>	<b>P-value</b>
Myocardial infarction	Yes vs. No	1.01 (0.61, 1.67)	0.9583
NT-proBNP (NA)	1	1.62 (1.33, 1.97)	<.0001
Sodium, mmol/L	1	0.98 (0.92, 1.05)	0.5251
RAGE (Q15109)	1	1.68 (0.98, 2.86)	0.0587
REN (P00797)	1	1.07 (0.79, 1.45)	0.6495
LVEF, %	1	1.05 (1.02, 1.07)	0.0003
Ferritin, µg/L, log2	Doubling	0.93 (0.79, 1.10)	0.3843
Systolic blood pressure, mmHg	10	0.82 (0.71, 0.94)	0.0063
Alkaline phosphatase, µg/L, log2	Doubling	1.78 (0.92, 3.44)	0.1092
HDL, mmol/L	1	1.30 (0.60, 2.82)	0.5113
Pooled C-index in Index Cohort		0.8085	
C-index of final model in Index Cohort		0.8055	
<i>Results from Cox proportional hazards regression model.</i>			

**Supplementary Figure 1. Receiver operator characteristic curves in the index and validation cohorts for the multivariable logistic regression model for inpatient status.**



**Supplementary Figure 2. Calibration curves in the index and validation cohorts for the multivariable logistic regression model for inpatient status.**

