Electronic Supplementary Material (ESI) for Molecular BioSystems.

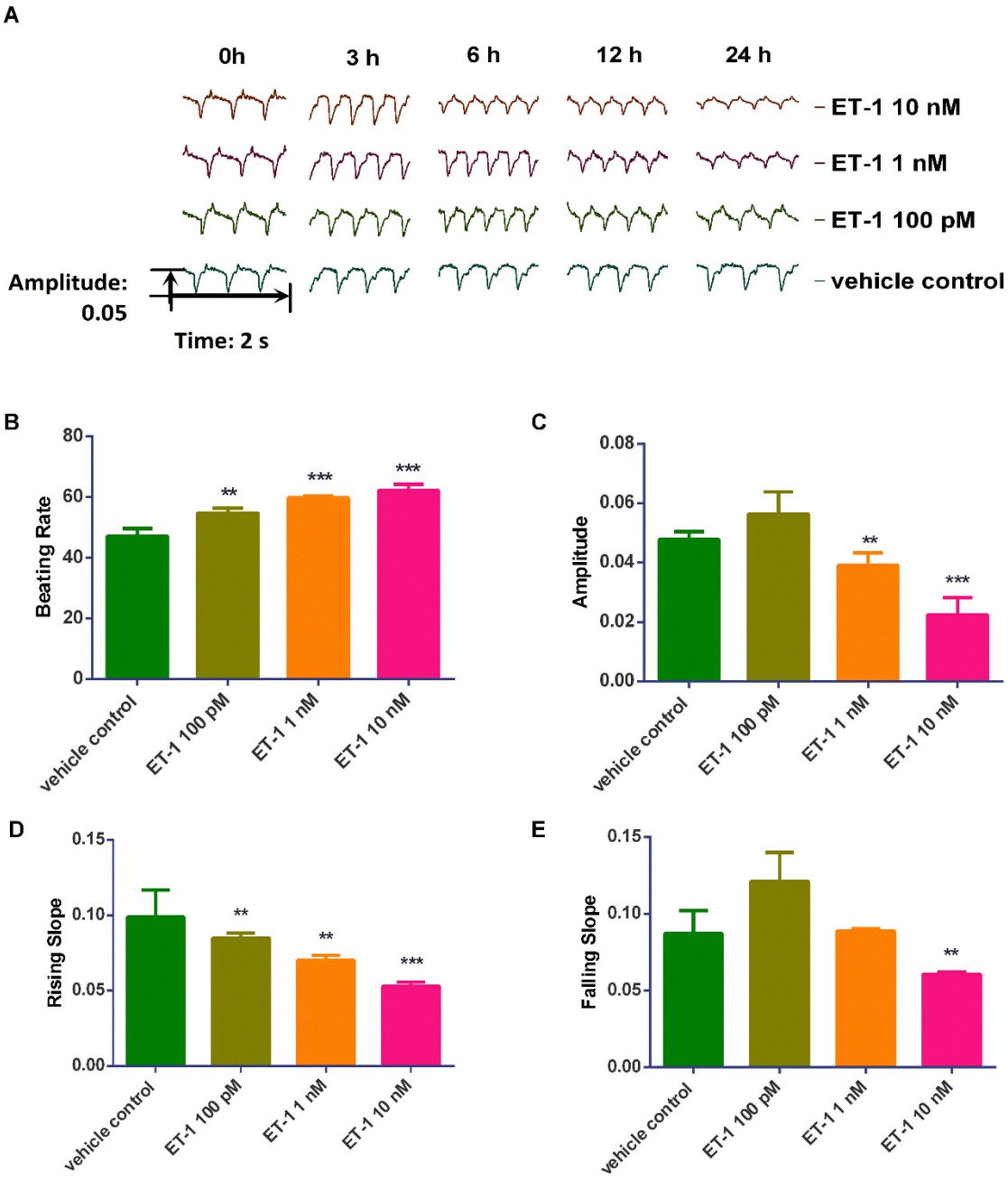

Figure S1. ET-1 induced cardiomyocytes dysfunction on hiPS-CMs. (A) Representative beating traces captured at selected time points (0, 3, 6, 12, 24 hours). (B) Beating rate of hiPS-CMs treated with different concentrations (10 nM, 1 nM, 100 pM) of ET-1. (C) Amplitude of hiPS-CMs treated with ET-1. (D) Rising slope of hiPS-CMs treated with ET-1. (E) Falling slope of hiPS-CMs treated with ET-1. ***P<0.01, **P<0.05: versus vehicle group.

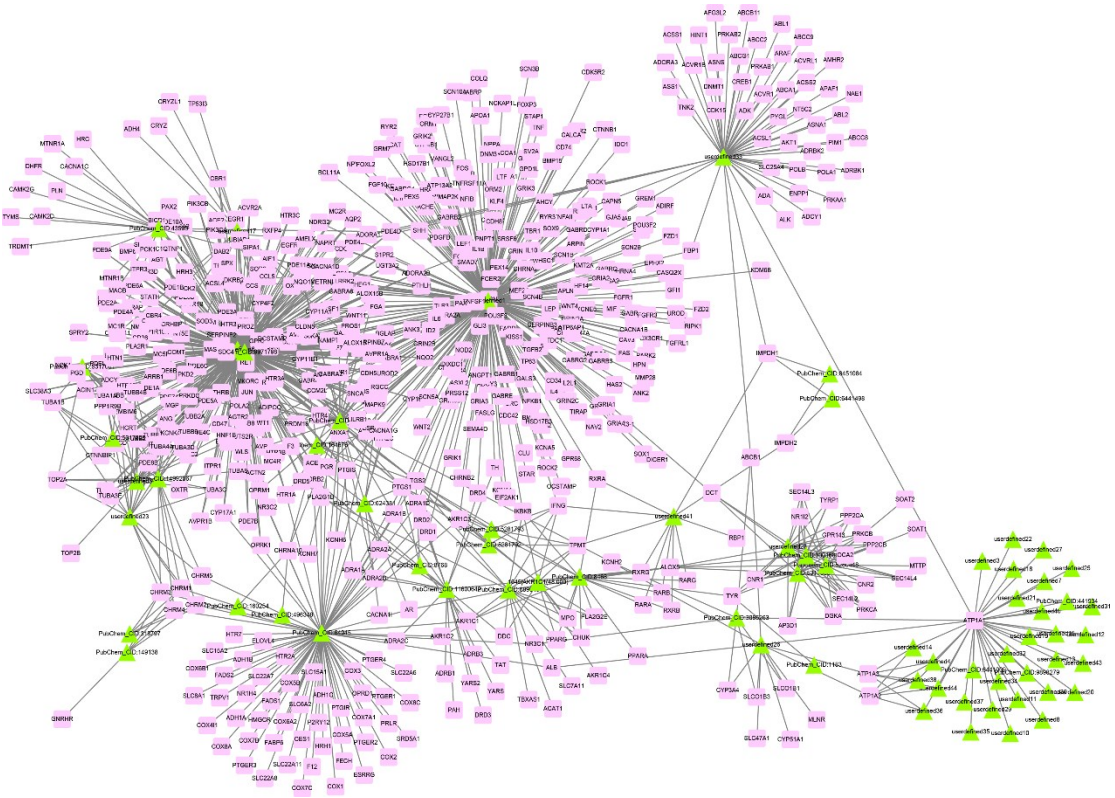

Figure S2. Network of interactions between chemical components of YXSC and their putative targets. Pink round notes refer to the putative targets of 62 compounds in YXSC; Green refer to the 62 compounds in YXSC.

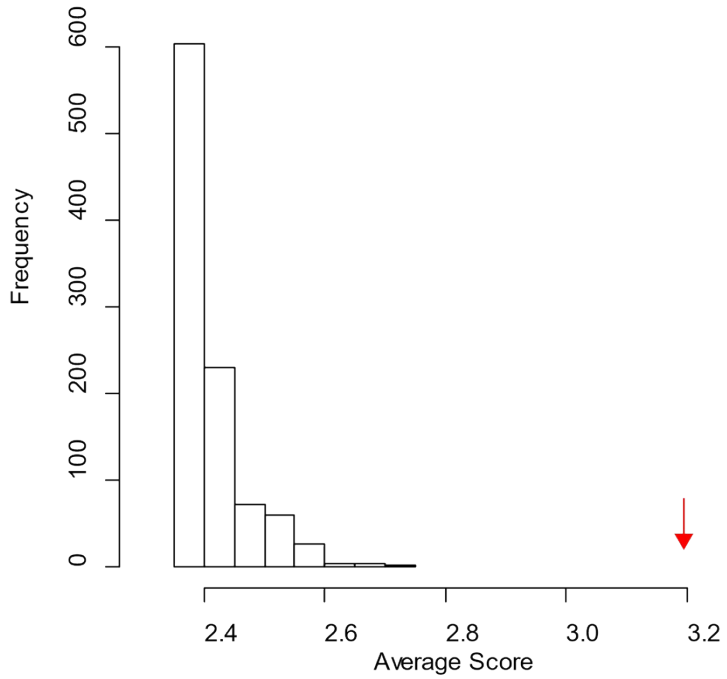

Figure S3. Histogram of random compound-target interactions average score in BATMAN-TCM. Random interactions were generated by YXSC compounds with random picked targets, which was repeated 1000 times. Average score of actual compound-target interactions was marked as red arrow.

Table S1. Summary of chemical constituents identified in YXS Capsules intestinal absorption liquid by UPLC-ESI-Q/TOF-MS

NO.	Rt(min)	Compound names	Molecular formula	Expected neutral mass (Da)	Observed neutral mass (Da)	Mass accuracy (ppm)	measured mass m/z(Da)
1	1.66	Chlorogenic acid*	C16H18O9	354.0951	354.0958	2.0	355.1031 $[M+H]^+$
2	1.91	Protocatechuic acid*	C7H6O4	154.0266	154.0265	-0.6	153.0192 $[M-H]^-$
3	2.10	Vanillin*	C8H8O3	152.0473	152.0466	-4.6	151.0393 $[M-H]^-$ 197.0448 $[M+HCOO]^-$
4	2.60	Vanillic acid*	C8H8O4	168.0423	168.042	-1.8	167.0347 $[M-H]^-$
5	2.72	Danshensu*	C9H10O5	198.0528	198.0521	-3.5	197.0448 $[M-H]^-$
6	3.15	Caffeic acid*	C9H8O4	180.0423	180.042	-1.7	179.0347 $[M-H]^-$
7	3.52	Calycosin-7-O-β-D-glucoside*	C22H22O10	446.1213	446.1197	-3.6	447.1270 $[M+H]^+$
8	4.13	Rosmarinic acid*	C18H16O8	360.0845	360.0839	-1.7	359.0766 $[M-H]^-$
9	4.21	Lithospermic acid*	C27H22O12	538.1111	538.1124	2.4	539.1197 $[M-H]^-$
10	4.23	Salvianolic acid A*	C26H22O10	494.1213	494.121	-0.6	493.1137 $[M-H]^-$
11	4.31	Protocatechuic aldehyde*	C7H6O3	138.0317	138.0329	-8.7	137.0256 $[M-H]^-$
12	4.46	Re 4	C47H80O18	932.5345	932.5304	-4.4	931.5231 $[M-H]^-$
13	4.59	Salvianolic acid B*	C36H30O16	718.1534	718.1507	-3.8	717.1434 $[M-H]^-$
14	4.69	Notoginsenoside R1	C47H80O18	932.5345	932.5311	-3.6	931.5238 $[M-H]^-$
15	4.75	Formononetin-7-O-β-D-glycoside	C22H22O9	430.1264	430.1269	1.2	431.1342 $[M+H]^+$
16	4.83	Isoferulic acid	C10H10O4	194.0579	194.0579	0.0	193.0506 $[M-H]^-$
17	4.99	Re*	C48H82O18	946.5501	946.5476	-2.6	945.5403 $[M-H]^-$
18	5.50	Rg1/Ia,	C42H72O14	800.4922	800.493	1.0	801.5003 $[M+H]^+$
19	5.53	Calycosin	C16H12O5	284.0685	284.068	-1.8	283.0607 $[M-H]^-$

							285.0753 $[M+H]^-$
20	5.98	Acetyl-Re	$C_{50}H_{84}O_{19}$	988.5607	988.5569	-3.8	987.5496
21	6.73	Cyclocanthoside E	$C_{41}H_{70}O_{14}$	786.4766	786.4779	1.7	787.4852 $[M+H]^+$
22	6.86	Ursolic acid/Oleanlic acid	$C_{30}H_{48}O_3$	456.3603	456.3611	1.8	457.3684 $[M+H]^+$
23	6.87	Rf	$C_{42}H_{72}O_{14}$	800.4922	800.4932	1.2	801.5005 $[M+H]^+$
24	7.13	Rb1*	$C_{54}H_{92}O_{23}$	1108.6029	1108.5985	-4.0	1107.5912 $[M-H]^-$
25	7.13	Rg2/Rg3/Ginsenoside F2	$C_{42}H_{72}O_{13}$	784.4973	784.4981	1.0	785.5054 $[M+H]^+$
26	7.23	Malonyl-ginsenoside Rb1	$C_{57}H_{94}O_{26}$	1194.6033	1194.5981	-4.4	1193.5908 $[M-H]^-$
27	7.38	Rc	$C_{53}H_{90}O_{22}$	1078.5924	1078.5875	-4.5	1077.5802 $[M-H]^-$
28	7.61	Acetyl-Rb1	$C_{56}H_{94}O_{24}$	1150.6135	1150.6108	-2.3	1149.6035 $[M-H]^-$
29	7.63	Rb2/Rb3	$C_{53}H_{90}O_{22}$	1078.5924	1078.5863	-5.7	1077.5790 $[M-H]^-$
30	7.84	Quinquenoside R1	$C_{56}H_{94}O_{24}$	1150.6135	1150.6079	-4.9	1149.6006 $[M-H]^-$
31	8.02	Acetyl-Rf/Acetyl-Rg1/Yesanchinoside D	$C_{44}H_{74}O_{15}$	842.5028	842.5041	1.5	843.5114 $[M+H]^+$
32	8.03	Agroastragaloside II	$C_{43}H_{72}O_{15}$	828.4871	828.4882	1.3	829.4955 $[M+H]^+$
33	8.11	Acetyl-Rc/Rs1/RS2	$C_{55}H_{92}O_{23}$	1120.6029	1120.5962	-6.0	1119.5889 $[M-H]^-$
34	8.14	Rd	$C_{48}H_{82}O_{18}$	946.5501	946.5453	-5.1	945.5380 $[M-H]^-$
35	8.18	Tanshindiol B/Tanshindiol C	$C_{18}H_{16}O_5$	312.0998	312.0996	-0.6	311.0923 $[M-H]^-$
36	8.34	Acetyl-Rb2/Acetyl-Rb3	$C_{55}H_{92}O_{23}$	1120.6029	1120.5962	-6.0	1119.5889 $[M-H]^-$
37	8.49	Gypenoside Ⅹ Ⅶ	$C_{48}H_{82}O_{18}$	946.5501	946.5454	-5.0	945.5381 $[M-H]^-$
38	8.52	Tanshinol B*	$C_{18}H_{16}O_4$	296.1049	296.104	-3.0	297.1113 $[M+H]^+$
39	8.63	Kadsuranin	$C_{23}H_{28}O_6$	400.1886	400.1863	-5.7	399.1790 $[M-H]^-$
40	8.86	Pseudo-ginsenoside RC1/Acetyl-gypenoside Ⅹ Ⅶ/Acetyl-Rd	$C_{50}H_{84}O_{19}$	988.5607	988.5556	-5.2	987.5483 $[M-H]^-$
41	9.06	1,2,6,7,8,9-Hexahydro-1,6,6-trimethyl-3,11-dioxanaphth[2,1-e]azulene-10,12-dione	$C_{19}H_{20}O_4$	312.1362	312.1364	0.6	313.1437 $[M+H]^+$
42	9.28	Tanshinone Ⅱ B	$C_{19}H_{18}O_4$	310.1205	310.1206	0.3	311.1279 $[M+H]^+$

43	9.78	Tanshinone VI	C18H16O4	296.1049	296.1043	-2.0	295.0970 $[M-H]^-$
44	9.82	Gomisin D	C28H34O10	530.2152	530.2154	0.4	531.2227 $[M+H]^+$
45	9.91	Gomisin J	C22H28O6	388.1886	388.1873	-3.3	389.1946 $[M+H]^+$
46	10.13	Gomisin O/Epi-gomisin O	C23H28O7	416.1835	416.1845	2.4	417.1918 $[M+H]^+$
47	10.19	1-Oxomiltirone	C19H20O3	296.1412	296.1415	1.0	297.1488 $[M+H]^+$
48	10.66	Tanshinone Ⅰ	C18H12O3	276.0786	276.0804	6.5	277.0877 $[M+H]^+$
49	10.73	Schisandrol B*	C23H28O7	416.1835	416.1792	-10.3	417.1865 $[M+H]^+$
50	11.11	Danshenxinkun B	C18H16O3	280.1099	280.1102	1.1	281.1175 $[M+H]^+$
51	11.23	Schisandrin B*	C23H28O6	400.1886	400.1889	0.7	401.1962 $[M+H]^+$
52	11.67	Tanshinone Ⅱ A*	C19H18O3	294.1256	294.126	1.4	295.1333 $[M+H]^+$
53	11.70	Schisandrin C	C22H24O6	384.1573	384.1619	12.0	383.1546 $[M-H]^-$
54	11.93	Gomisin G	C30H32O9	536.2046	536.2025	-3.9	537.2098 $[M+H]^+$
55	12.25	(-)Gomisin K1/(+) Gomisin K2	C23H30O6	402.2042	402.2047	1.2	403.2120 $[M+H]^+$
56	12.62	1,2-Didehydromiltirone	C19H20O2	280.1463	280.1433	-10.7	281.1506 $[M+H]^+$
57	12.77	Schisantherin A*	C30H32O9	536.2046	536.2024	-4.1	537.2097 $[M+H]^+$
58	12.85	Cryptotanshinone	C19H20O3	296.1412	296.1415	1.0	297.1488 $[M+H]^+$
59	13.20	Schisanhenol	C23H30O6	402.2042	402.2049	1.7	403.2122 $[M+H]^+$
60	14.70	Senkyunolide B/C/E	C12H12O3	204.0786	204.0788	1.0	205.0861 $[M+H]^+$
61	14.90	Schisandrin A*	C24H32O6	416.2199	416.2208	2.2	417.2281 $[M+H]^+$
62	15.59	Gomisin N	C23H28O6	400.1886	400.1887	0.2	401.1960 $[M+H]^+$

* Compound identified by comparison with the reference standards

Table S2. Effective rate score of compounds in YXS

Compounds	sub out-degree	total out-degree	effective rate
Danshensu	78	128	0.609375
Protocatechuic aldehyde	33	67	0.492537313
TanshinoneIIA	48	101	0.475247525
Schisandrin B	20	45	0.444444444
Schisandrin A	69	158	0.436708861
Schizandrol A	37	86	0.430232558
Methyl tanshinonate	24	56	0.428571429
1,2-Dihydrotanshinquinone	73	170	0.429411765
Epigomisin O	57	134	0.425373134
Gomisin O	57	134	0.425373134
Salvianolic acid B	22	52	0.423076923
Rosmarinic acid	40	96	0.416666667
Rb1	52	126	0.412698413
ginsenoside Re	52	126	0.412698413
Notoginsenoside R1	52	126	0.412698413
FloralginsenosideM	52	126	0.412698413
ginsenoside Rc	52	126	0.412698413
ginsenoside Rd	52	126	0.412698413
ginsenoside Rb3	52	126	0.412698413
Notoginsenoside R1	52	126	0.412698413
ginsenoside Rb2	52	126	0.412698413
ginsenoside Re4	52	126	0.412698413
gypenosideVII	52	126	0.412698413

Caffeic acid	77	188	0.409574468
Ursolic acid	103	252	0.408730159
ginsenoside Rg1	55	135	0.407407407
Ginsenoside F2	55	135	0.407407407
Tanshinone VI	34	84	0.404761905
Isoferulic acid	22	55	0.4
Acetyl ginsenoside Rf	26	69	0.376811594
Acetyl ginsenoside Rb2	29	84	0.345238095
Acetyl ginsenoside Rb3	29	84	0.345238095
Acetyl ginsenoside Rd	29	84	0.345238095
Acetyl ginsenoside Re	29	84	0.345238095
Acetyl ginsenoside Rb1	29	84	0.345238095
Acetyl gypenoside VII	29	84	0.345238095
Rg2	30	87	0.344827586
ginsenoside Rf	30	87	0.344827586
ginsenoside Ia	63	185	0.340540541
(20R)-Rg3	27	81	0.333333333
ginsenoside Rg3	27	81	0.333333333
20(R)-Rg2	27	81	0.333333333
Acetyl ginsenoside Rg1	30	91	0.32967033
(-)Gomisin K1	46	142	0.323943662
(+)Gomisin K2	46	142	0.323943662
Gomisin J	46	142	0.323943662
Acetyl ginsenoside Rc	27	85	0.317647059
ginsenoside Rs1	34	115	0.295652174

Pseudo-ginsenoside RC1	34	115	0.295652174
ginsenoside Rs2	34	115	0.295652174
Yesanchinoside D	34	115	0.295652174
Quinquenoside R1	34	115	0.295652174
Malonyl-ginsenoside Rb1	27	101	0.267326733
Senkyunolide B	28	105	0.266666667
Vanillic acid	46	173	0.265895954
Agroastragaloside II	22	87	0.252873563
Oxomiltirone	208	915	0.227322404
1,2-Didehydromiltirone	207	912	0.226973684
Vanillin	26	116	0.224137931
Danshenxinkun B	229	1308	0.175076453