The indole motif is essential for the antitrypanosomal activity of N^5-substituted paullones

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S2 Table. Physicochemical properties, water solubility and pharmacokinetics predicted data for benzazepinones and paullones tested in biological assays.

#cmpd	Molecular weight	Fraction Csp3	#Rotatable bonds	#H-bond acceptors	#H-bond donors	TPSA	Consensus Log P[2]	ESOL Log S[3]	Ali Log S[3]	Silicos-IT LogSw[3]	GI absorption	BBB permeant	Pgp substrate	Lipinski #violations	Bioavailability Score	PAINS #alerts	Leadlikeness #violations
1f	522.77	0.24	6	3	3	77.23	3.19	-4.92	-4.22	-8.59	High	Yes	Yes	1	0.55	0	1
1g	431.32	0.24	6	3	3	77.23	3.05	-4.33	-4.19	-8.36	High	Yes	Yes	0	0.55	0	1
1h	464.87	0.27	7	6	3	77.23	3.55	-4.60	-4.46	-8.59	High	No	Yes	0	0.55	0	1
2a[1]	275.35	0.47	6	3	2	61.44	1.20	-1.70	-1.38	-4.38	High	No	Yes	0	0.55	0	0
2b	430.54	0.61	9	5	1	82.19	1.95	-3.10	-2.99	-4.52	High	No	Yes	0	0.55	0	2
2c	361.44	0.53	9	4	2	87.74	1.88	-2.70	-3.11	-4.85	High	No	Yes	0	0.55	0	2
2d	387.47	0.57	6	4	0	70.16	1.98	-3.13	-2.88	-3.70	High	No	Yes	0	0.55	0	1
2e	375.46	0.55	9	4		78.95	2.15	-2.90	-3.12	-4.51	High	No	Yes	0	0.55	0	2
2f	389.49	0.57	11	4	2	87.74	2.64	-3.18	-3.85	-5.64	High	No	Yes	0	0.55	0	2
2g	401.50	0.59	7	4	1	78.95	2.32	-3.53	-3.69	-4.45	High	No	Yes	0	0.55	0	1
2h	288.34	0.50	3	3	0	49.85	1.37	-2.12	-1.39	-3.27	High	No	Yes	0	0.55	0	0
2i	286.37	0.53	3	2	0	40.62	2.23	-2.88	-2.46	-3.80	High	Yes	Yes	0	0.55	0	0
2j	272.34	0.50	3	2	0	40.62	1.95	-2.57	-2.09	-3.53	High	Yes	Yes	0	0.55	0	0
2k	274.36	0.50	5	2	0	40.62	2.21	-2.61	-2.34	-4.00	High	Yes	No	0	0.55	0	0
2o[1]	330.42	0.56	6	4	2	64.68	0.92	-1.89	-1.25	-4.42	High	No	Yes	0	0.55	0	0
2p[1]	261.32	0.43	5	3	2	75.43	0.74	-1.37	-1.15	-3.59	High	No	Yes	0	0.55	0	0
2q[1]	287.36	0.50	3	3	1	52.65	1.07	-1.94	-1.15	-3.58	High	No	Yes	0	0.55	0	0
2s[1]	289.37	0.50	7	3	2	75.43	1.42	-1.84	-1.89	-4.39	High	No	Yes	0	0.55	0	0
2t[1]	331.41	0.56	6	4	1	61.88	1.23	-2.07	-1.49	-4.11	High	No	Yes	0	0.55	0	0
2u[1]	344.45	0.58	6	4	1	55.89	1.21	-2.26	-1.56	-4.08	High	No	Yes	0	0.55	0	0
2v[1]	301.38	0.53	3	3	0	43.86	1.33	-2.31	-1.46	-3.24	High	No	Yes	0	0.55	0	0
3a[1]	303.40	0.53	6	3	2	61.44	1.74	-2.44	-2.35	-5.14	High	Yes	Yes	0	0.55	0	0
3b	458.59	0.64	9	5	1	82.19	2.51	-3.85	-3.95	-5.26	High	No	Yes	0	0.55	0	2
3c	403.52	0.59	9	4	1	78.95	2.71	-3.65	-4.08	-5.25	High	No	Yes	0	0.55	0	2
3d[1]	358.48	0.60	6	4	2	64.68	1.52	-2.63	-2.22	-5.16	High	No	Yes	0	0.55	0	1
4b	478.58	0.44	9	5	1	82.19	2.61	-4.12	-4.00	-6.43	High	No	Yes	0	0.55	0	2

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4c	423.50	0.38	9	4	1	78.95	2.80	-3.93	-4.13	-6.43	High	Yes	Yes	0	0.55	0	2
4d[1]	378.47	0.36	6	4	2	64.68	1.62	-2.93	-2.27	-6.34	High	No	Yes	0	0.55	0	1
5b	473.57	0.58	10	7	1	103.78	1.76	-3.08	-3.10	-4.64	High	No	Yes	0	0.55	0	2
5c	315.37	0.47	4	4	0	62.21	1.69	-2.54	-2.21	-3.67	High	Yes	Yes	0	0.55	0	0
5d[1]	373.45	0.53	7	6	2	86.27	0.69	-1.86	-1.37	-4.55	High	No	Yes	0	0.55	0	1
9a	466.66	0.11	2	3	2	73.40	3.44	-5.33	-4.85	-6.78	High	Yes	No	0	0.85	0	2
9b	375.21	0.11	2	3	2	73.40	3.32	-4.74	-4.82	-6.53	High	Yes	No	0	0.85	0	2
9c	408.76	0.16	3	6	2	73.40	3.81	-5.00	-5.09	-6.77	High	No	No	0	0.85	0	2
10a	622.88	0.35	9	4	2	94.74	4.13	-6.09	-5.95	-8.65	High	No	Yes	1	0.55	0	3
10b	531.43	0.35	9	4	2	94.74	4.04	-5.51	-5.93	-8.43	High	No	Yes	1	0.55	0	3
10c	564.98	0.37	10	7	2	94.74	4.56	-5.80	-6.20	-8.66	Low	No	Yes	1	0.55	0	3
13	219.24	0.33	2	3	1	57.61	1.33	-2.10	-2.01	-2.52	High	Yes	No	0	0.85	0	1
16	247.29	0.43	2	3	1	57.61	1.94	-2.83	-2.97	-3.28	High	Yes	No	0	0.85	0	1
18	323.39	0.30	4	3	0	46.61	3.35	-4.15	-4.15	-5.97	High	Yes	No	0	0.55	0	0
19	267.28	0.12	2	3	1	57.61	2.09	-3.18	-3.01	-4.47	High	Yes	No	0	0.85	0	0
20	204.23	0.27	1	3	1	50.69	1.49	-2.03	-1.76	-3.61	High	Yes	No	0	0.55	0	1
21	318.37	0.47	5	5	0	68.20	2.40	-3.06	-3.26	-4.18	High	Yes	No	0	0.55	0	0
22	262.26	0.31	3	5	1	79.20	1.13	-2.06	-2.13	-2.67	High	No	No	0	0.56	0	0

All calculations performed with SwissADME from SMILES of neutral and uncharged compounds as recommended by the software [1]. [1]The neutral compound was used for calculations instead of the biologically tested hydrochloride form. **2a** is the free base to the hydrochloride **2r**, and **3a** is the free base to the hydrochloride **3e**; [2]Consensus clogP from ilogP, XlogP3, WlogP, MlogP and SILICOS-IT; [3]Theoretical aqueous solubility was calculated by two topological methods: ESOL [2] and one adopted from Ali *et al.* [3]; or the fragmental method from SILICOS-IT in SwissADME [1].

References

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