

Study	Total n	Patients	Duration	Age (mean+/-SD)	Male, %	White (%)	Drug	n	Outcomes ^a
006 (2012). USA and Japan. Industry. NCT00792298	254	Primary insomnia (DSM-IV-TR). age: 18 to 64 years. 1-week, SB, PLA run-in period (PSG assessments: the first night and 1 week later. LPS>20 mins. on both PSG nights and mean WASO≥60 mins on both nights with neither night<45 min)	4 weeks	SUV10: 45.1+/-11.5, SUV20: 44.3+/-11.1, SUV40: 44.5+/-11.3, SUV80: 43.8+/-12.1, PLA: 44.3+/-11.5	SUV10: 45.2, SUV20: 34.4, SUV40: 45.8, SUV80: 44.3, PLA: 41.0	SUV10: 71.0 SUV20: 63.9, SUV40: 71.2, SUV80: 73.8, PLA: 70.3	SUV10 mg/d	63 (31/32)	all dose>PLA: <u>SE</u> , WASO and TST, only SUV20, 40 and 80>PLA: ISI, only SUV40 and 80>PLA: sTST, sTSO, sQUAL, only SUV20>PLA: LPS, all dose=PLA: NAW and sFRESH
							SUV20 mg/d	65 (33/32)	
							SUV40 mg/d	64 (32/32/)	
							SUV80 mg/d	62 (31/31)	
							PLA	253 (127/126)	
009 (2014). USA, Australia, Europe, and South Africa. Industry. NCT01021813	781	Primary insomnia (DSM-IV-TR, assessed by a clinical interview and a structured sleep diagnostic interview). age≥18 years.	52 weeks	SUV40: 61.3+/-14.5, PLA: 62.0+/-14.6 <65 years SUV40: 213 (41%) PLA: 107 (42%) ≥65 years SUV40: 308 (59%) PLA: 151 (59%)	SUV40: 44.9, PLA: 42.3	SUV40: 91.4, PLA:89.5	SUV40 mg/d	522	SUV40>PLA: sTST, sTSO, sWASO, sNAW, sQUAL, sFRESH, ISI, CGI-S, PGI-S, CGI-I and PGI-I
							PLA	258	
028 (2014). USA, Europe, Asia, and South Africa. Industry. NCT01097616	1022	Primary insomnia (DSM-IV-TR). age≥18 years. 2-weeks, SB, PLA run-in period (Q-cohort: sTST<6.5 hrs and sTSO>30 mins on ≥ 4 of 7 nights, PQ-cohort: LPS>20 mins and WASO≥60 min on combined nights with neither night≤45 mins.	3 months	SUV20: 55+/-16, SUV40: 56+/-15, PLA: 56+/-15 <65 years SUV20: 147 (57.9%) SUV40: 222 (58.0%) PLA: 223 (58.1%) ≥65 years SUV20: 107 (42.1%)	SUV20: 36.2 SUV40: 39.9 PLA: 36.2	SUV20: 66.1 SUV40: 66.1 PLA: 63.5	SUV20 mg/d	254	all dose>PLA: <u>sTST</u> , <u>sTSO</u> , <u>LPS</u> , <u>WASO</u> , ISI, CGI-S, PGI-S, CGI-I and PGI-I, only SUV40>PLA: sWASO and sQUAL, all dose=PLA: sNAW and sFRESH
							SUV40 mg/d	383	
							PLA	385	

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029 (2014). USA, Australia, Europe, Asia, and South Africa. Industry. NCT01097629	1019	Primary insomnia (DSM-IV-TR). age \geq 18 years. 2-weeks, SB, PLA run-in period (Q-cohort: sTST $<$ 6.5 hrs and sTSO $>$ 30 mins on \geq 4 of 7 nights, PQ-cohort: LPS $>$ 20 mins and WASO \geq 60 min on combined nights with neither night \leq 45 mins.	3 months	SUV40: 161 (42.0%) PLA: 161 (41.9%) SUV20: 56+/-16, SUV20: 57+/-15, PLA: 57+/-15 <65 years SUV20: 144 (60.3%) SUV40: 229 (59.2%) PLA: 226 (59.0%) \geq 65 years SUV20: 95 (39.7%) SUV40: 158 (40.8%) PLA: 157 (41.0%)	SUV20: 34.3 SUV40: 31.0 PLA: 35.5	SUV20: 79.5 SUV40: 80.1 PLA: 80.7	SUV20 mg/d SUV40 mg/d PLA	240 392 387	all dose $>$ PLA: <u>sTST</u> , <u>sTSO</u> , sWASO, sQUAL, sFRESH, <u>WASO</u> , ISI, CGI-S, PGI-S, CGI-I and PGI-I, all dose=PLA: <u>LPS</u> and sNAW

S2 Table. Study, patient, and treatment characteristics for the analyzed randomized, controlled trials.

^a The primary outcome of 009 study was the safety and tolerability of SUV.

Q-cohort: Patients received only subjective assessment, PQ-cohort: Patients received subjective and objective assessment.

CGI-I: Clinical Global Impression-Improvement scale, CGI-S: Clinical Global Impression-Severity scale, d: day, DSM-IV-TR:., hr: hour, ISI: Insomnia Severity Index, LPS: latency to onset of persistent sleep, min: minute, sNAW: (subjective) number of awakenings, PGI-I: Patient Global Impression-Improvement scale, PGI-S: Patient Global Impression-Severity scale, PLA: placebo, PSG: polysomnography, SB: single-blind, SE: sleep efficiency, sFRESH: subjective refreshed feeling on waking, sQUAL: subjective quality of sleep, TSO: subjective time to sleep onset, (s)TST: (subjective) total sleep time, SUV: suvorexant, (s)WASO: (subjective) wakefulness after persistent sleep onset,