

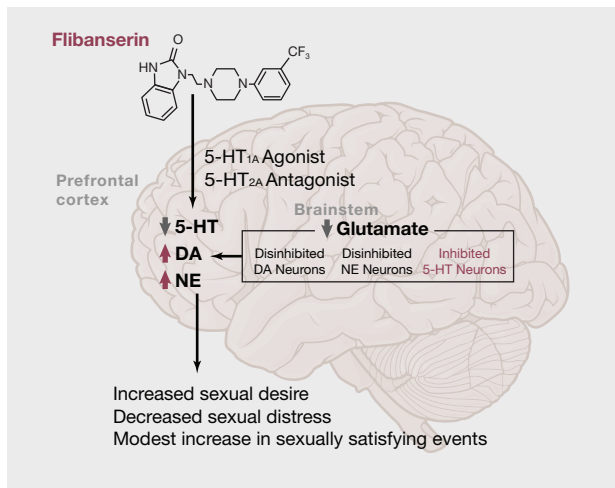
Treatment for Hypoactive Sexual Desire

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NAME

Flibanserin (Addyi)

APPROVED FOR

Treatment of hypoactive sexual desire disorder (HSDD) in women

TYPE

Small molecule: centrally active piperazine/benzimidazol derivative

MOLECULAR TARGETS

Full agonist at 5-HT_{1A} receptors, antagonist at 5-HT_{2A} receptors. Reduces forskolin-stimulated cAMP and eliminates 5-HT-stimulated phosphatidylinositol turnover in cortex.

CELLULAR TARGETS

Reduction of serotonin-induced descending inhibition in medial prefrontal cortex, limbic regions, hypothalamus, and brainstem.

EFFECTS ON TARGETS

Disinhibition of dopamine (DA) and noradrenaline (NE) turnover within cortical, limbic, and hypothalamic regions associated with the stimulation of sexual desire.

DEVELOPED BY

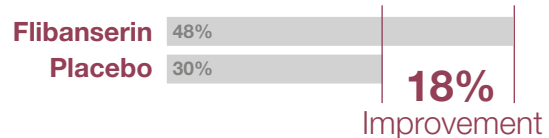
Boehringer Ingelheim > Sprout Pharmaceuticals > Valeant Pharmaceuticals

Flibanserin acts at cortical, limbic, hypothalamic, and brainstem nuclei to inhibit serotonin release by binding to 5-HT_{1A} autoreceptors and block postsynaptic action of serotonin at 5-HT_{2A} receptors. This gradually disinhibits the turnover of other monoamines like dopamine and noradrenaline that are critical for sexual desire.

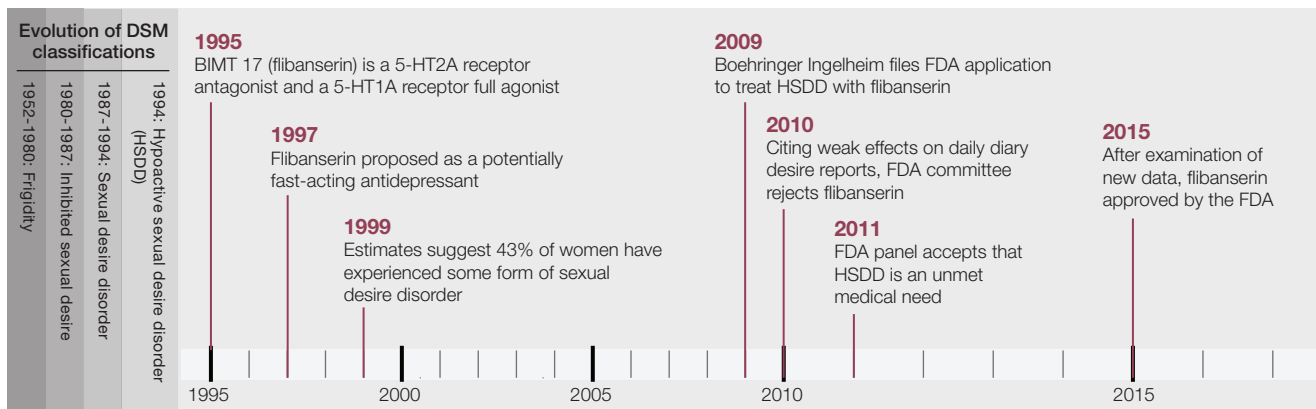
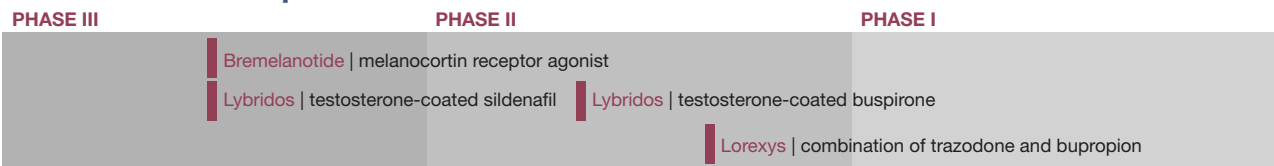
Varying estimates of HSDD incidence



After 24 weeks of treatment



Also under development for HSDD



References for further reading are available with this article online: [www.cell.com/cell/abstract/S0092-8674\(15\)01329-X](http://www.cell.com/cell/abstract/S0092-8674(15)01329-X)