

No, a single hormone cannot turn mice gay

In 2011, a group of scientists “[turned mice gay](#).” The only issue is, of course, they didn’t.

Rather, Yi Rao and colleagues at Peking University in Beijing, China, showed that male mice will cheerfully mount both male and female mice, as long as their brains are deficient in one chemical messenger: serotonin. The paper, [published](#) in *Nature*, received [plenty](#) of [media](#) coverage. Now, two other research groups report seemingly opposite findings: Male mice with no serotonin in their brains still prefer female mice to males. The researchers contend that serotonin is about social communication and impulsive behaviors, not sex.

Mounting behavior aside, sexual preference in mice is not about “turning mice gay.” It never has been. Instead, it’s about the role that a single chemical can play in animal behavior. And it’s about what, exactly, those behaviors really mean.

Serotonin serves as a messenger between cells. It plays important roles in mood. Serotonin-related drugs are used to treat some forms of migraine. And of course, serotonin plays a role in the psychedelic effects of recreational drugs such as [hallucinogens](#). So when the Peking University group set out to show serotonin’s role in sexual preference, they attacked it from several angles. They used mice that had been genetically engineered to lack the brain cells that usually produce serotonin. They used a chemical to deplete serotonin in the brains of normal mice. And they created another strain of mice that lacked the enzyme that makes serotonin in the brain.

Read full, original article: [Serotonin and the science of sex](#)