These researchers aren’t talking about whether you smoked during pregnancy. They’re looking further back at whether your grandmother did.

Although their research has been in mouse models so far, two assistant professors of biomedical sciences at Florida State University report finding evidence that attention deficit hyperactivity disorder associated with nicotine can be passed across generations.

Their study, published in the current issue of The Journal of Neuroscience, indicates prenatal exposure to nicotine could manifest as ADHD in children born a generation later.

Professors Pradeep G. Bhide and Jinmin Zhu’s research on prenatal nicotine exposure and hyperactivity in mice follows on recent discoveries about how stress, fear or hormonal imbalance can be passed to the next generation.

“What our research and other people’s research is showing is that some of the changes in your genome – whether induced by drugs or by experience – may be permanent and you will transmit that to your offspring,” Bhide said in a news release. He is chair of developmental neuroscience and director of the Center for Brain Repair at the College of Medicine.