A new hepatitis C virus (HCV) vaccine has yielded promising results in a Phase I trial, prompting significant immune activity against the virus, HIVandHepatitis.com reports. Publishing their findings in Science Translational Medicine, researchers gave the experimental hep C vaccine to 15 HCV-negative participants after previous research among animals showed that the vaccine elicited antiviral activity.

The vaccine mimics the process by which the immune systems of some people naturally clear the virus, working through what is known as a prime-boost strategy. Numerous hep C proteins are delivered to the immune system through simian adenovirus (ChAd3) and modified vaccinia Ankara (MVA) vectors. The MVA booster spurred CD4 and CD8 responses that targeted multiple hep C antigens. CD4 memory also evolved over time.

The vaccine had good safety and tolerability, with just mild and transient side effects.

The authors stated that the vaccine delivered “durable, broad, sustained, and balanced T-cell responses, characteristic of those associated with viral control.”

“The size and breadth of the immune responses seen in the healthy volunteers are unprecedented in magnitude for a hepatitis C vaccine,” principal investigator Ellie Barnes, PhD, a professor in the Nuffield Department of Medicine at Oxford University, said in a release.

Phase II studies of the vaccine have begun in Baltimore and San Francisco. Results are expected in 2016.

To read the HIVandHepatitis story, which includes a copy of a related press release, click here.

To read the study abstract, click here.