

New needle-free HPV vaccine increases effectiveness, availability in developing world

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New research being presented at the 2010 FIP Pharmaceutical Sciences World Congress in association with the American Association of Pharmaceutical Scientists Annual Meeting and Exposition will highlight a targeted inhalable dry powder vaccine that may prove preferable in terms of needle avoidance and expected lower cost than the current commercial human papillomavirus (HPV) vaccine used throughout the world.

HPV is the number one cause of cervical cancer, which is the second most common cancer in women around the globe. According to the World Health Organization, nearly a quarter of a million women die each year from [cervical cancer](#), 80 percent of them in developing countries.

Lead researcher David McAdams and colleagues from the University of Colorado at Boulder created a dry powder that goes directly to the mucous membranes in the respiratory tract or mouth. Since HPV is a disease that affects the mucous membranes, the powder is more targeted. "Imagine the vaccine as a car," said McAdams. "Using this delivery method is similar to parking in your driveway instead of driving around the block a few times to find a spot."

The dry powder has added benefits for developing countries. For example, the current [HPV vaccine](#) is delivered by a needle injection, which is highly susceptible to contamination. The powder, as a solid, rather than a frozen liquid, may be more stable than current HPV

vaccines, which makes it easier to store and transport in developing countries.

"While there are effective HPV vaccines on the market, cost, refrigeration and needle disposal shorten the reach they have," commented McAdams. "Our goal is to develop an economical, safe and easily administered HPV [vaccine](#) for everyone."

For the first time, FIP's PSWC and the AAPS Annual Meeting and Exposition will join to hold the world's largest pharmaceutical sciences meeting to improve global health through advances in pharmaceutical sciences. An estimated 10,000 scientists from more than 60 countries will participate in 100 sessions, including 40 symposia and roundtables.

Provided by American Association of Pharmaceutical Scientists

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