Tolenix™ (THVD-201), a novel combination of muscarinic antagonist (tolterodine) and muscarinic agonist (pilocarpine), is efficacious in OAB with less dry mouth compared to tolterodine alone.

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**Materials and Methods**
- All treatments were administered twice daily (BID).
- The number of micturitions/day and incontinence episodes (IE)/day were collected using standard 3-day urinary diaries at the end of each treatment.
- Dry mouth severity was assessed using a 100mm visual analog scale (VAS) (0mm = no dry, 100mm = very dry).
- Subjects with <13 micturitions/day, ≤5 IE/3 days, and a dry mouth score ≥35mm at the end of the lead-in period were eligible.
- 138 women were randomized.
- The number of micturitions/day and incontinence episodes (IE)/day were significantly reduced (p<0.0001) compared to Detrol® (40.4) and placebo (58.8) at week 2.
- Subjects with <13 micturitions/day, ≤5 IE/3 days, and a dry mouth score ≥35mm at the end of the lead-in period were eligible.
- The study was preceded by a 6-week Detrol® lead-in period.

**Results**
- The most frequently observed (≥3%) adverse events (AEs) associated with Tolenix™ were dry mouth, headache, and constipation.
- Subjects with <13 micturitions/day, ≤5 IE/3 days, and a dry mouth score ≥35mm at the end of the lead-in period were eligible.
- The mean number of micturitions/day for Detrol® and Tolenix™ were similar (8.74 and 8.69, respectively) and both were statistically superior to placebo (p<0.0001).
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**Discussion**
- Subjects reported lower mean dry mouth scores on Tolenix™ (28.7mm) that were significantly reduced (p<0.0001) compared to Detrol® (40.4mm).
- There were no study drug-related serious AEs or unanticipated AEs reported with Tolenix™.

**Introduction and Objectives**
- Anti-muscarinics for the treatment of overactive bladder (OAB) have limited patient satisfaction, compliance, and persistence, due to anti-muscarinic activity at salivary glands, resulting in significant dry mouth side effects. One approach to preventing anti-muscarinic induced dry mouth is to co-administer the short-acting muscarinic agonist pilocarpine as a salivary stimulant. Tolenix™ (THVD-201) is an oral capsule, fixed-dose combination drug product, containing an immediate-release tolterodine (2mg) and a proprietary, delayed-onset formulation of pilocarpine (9mg). The timed-release of pilocarpine is designed to correct the reduction in saliva caused by tolterodine. A Phase 2 randomized, double-blind, cross-over study, with placebo and active control (immediate-release 2mg Detrol®) was conducted to evaluate the safety and efficacy of Tolenix™ in women with OAB. The study was preceded by a 6-week Detrol® lead-in period.

**Study Design**
- The study was preceded by a 6-week Detrol® lead-in period.
- The most frequently observed (≥3%) adverse events (AEs) associated with Tollemix™ were dry mouth, headache, and constipation.
- Subjects with <13 micturitions/day, ≤5 IE/3 days, and a dry mouth score ≥35mm at the end of the lead-in period were eligible.
- The number of micturitions/day and incontinence episodes (IE)/day were significantly reduced (p<0.0001) compared to Detrol® (40.4) and placebo (58.8) at week 2.
- The mean number of micturitions/day for Detrol® and Tolenix™ were similar (8.74 and 8.69, respectively) and both were statistically superior to placebo (p<0.0001).
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