

6-2009-2241 | Controlled Release Technology for Oral Application  
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**Delivers treatment in response to pH conditions in mouth**

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|--------------------------|---|
| <b>Categories</b>        | Coatings, Biomaterials, Polymers, Composites, Dental Care |
| <b>Development Stage</b> | Successful clinical trials - ready for commercialization  |
| <b>Patent Status</b>     | Patent pending  |

**Highlights**

- Novel dental coating that delivers therapeutics over time, as required, in response to sensed changes in acidic/basic conditions in the oral cavity
- Dental disorders occur when there are changes in oral hygiene, diet, medicaments or age
- The main advantage of current therapeutic agents and drug delivery systems is their high substantivity in the target organ, in contrast to the applications currently used.
- Application-targeted reagent is suitable for oral disorders as: tooth decay, periodontal diseases, implantitis, halitosis, tooth whitening, hypersensitivity, cancer, fungal infection, repair and regeneration of bone, cartilage, tendon and ligament defects.

**Our Innovation**

The application is a pharmaceutical platform that various types of drugs can be incorporated into.

**Key Features**

- Increases exposure time to medication, preventing infections even in procedures in the root canal
- Enables sustained release treatment effective against bacteria, yeasts, viruses and fungi
- Reduces amount of drugs required, minimizing side effects. These advantages result in better clinical improvement and better patient compliance.
- Built-in pH sensor increases the rate of release of medication in response to changes in pH that occur in many pathological oral disorders such as infections, caries, inflammations, dry mouth, halitosis, candidiasis, delivering medication as required
- Simple production process; straightforward scale-up

**Development Milestones**

Seeking industry cooperation for commercialization

**The Opportunity**

Additional applications in medicine in human or in animals

**Patent Status**

Granted China 201080055070.7; Mexico 330325

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