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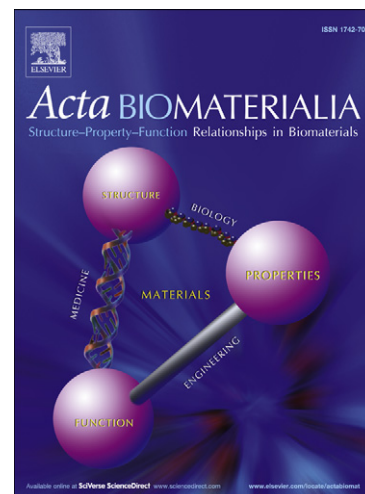
Silica-coated calcium pectinate beads for colonic drug delivery

Ali Assifaoui, Frédéric Bouyer, Odile Chambin, Philippe Cayot

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1 **Silica-coated calcium pectinate beads for colonic drug delivery**

2 Ali Assifaoui <sup>a,b,\*</sup>, Frédéric Bouyer <sup>c</sup>, Odile Chambin <sup>a,b</sup>, Philippe Cayot <sup>b</sup>

3 <sup>a</sup>Department of Pharmaceutical Technology, School of Pharmacy, Université de  
4 Bourgogne, 7 bd Jeanne d'Arc 21079 Dijon, France

5 <sup>b</sup>UMR PAM Université de Bourgogne/AgroSup Dijon, PAPC team, 1  
6 Esplanade Erasme 21000 Dijon, France

7 <sup>c</sup>Laboratoire Interdisciplinaire Carnot de Bourgogne, UMR 6303 CNRS -  
8 Université de Bourgogne, 9 Av. Alain Savary 21078 Dijon, France

9 \* Email: ali.assifaoui@u-bourgogne.fr

10 Tel.: + 33 380393214 Fax.: +33 380393300

11 **Keywords**

12 Pectin; silica-coating; hybrid beads, controlled release

13 **Abstract**

14 The aim of this work is to develop novel organic-inorganic hybrid beads for  
15 colonic drug delivery. For this purpose, calcium pectinate beads with  
16 theophylline are prepared by a cross-linking reaction between amidated low-  
17 methoxyl pectin and calcium ions. Then beads are covered with silica starting  
18 from tetraethoxysilane (TEOS) by a sol-gel process. The influence of TEOS  
19 concentration (0.25, 0.50, 0.75 and 1.00 M) during the process is studied in  
20 order to modulate the thickness of the silica layer around the pectinate beads and

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