

Title **Ultrastable mucoadhesive gold nanoparticles for corneal drug delivery**

Activity sectors Ophthalmology - Drug delivery - Nanomedicine

Inventor(s) Élodie Boisselier *et al.*, CUO-Recherche, Axe Médecine régénératrice, Centre de recherche du CHU de Québec-Université Laval



Markets Topical drug delivery to the cornea

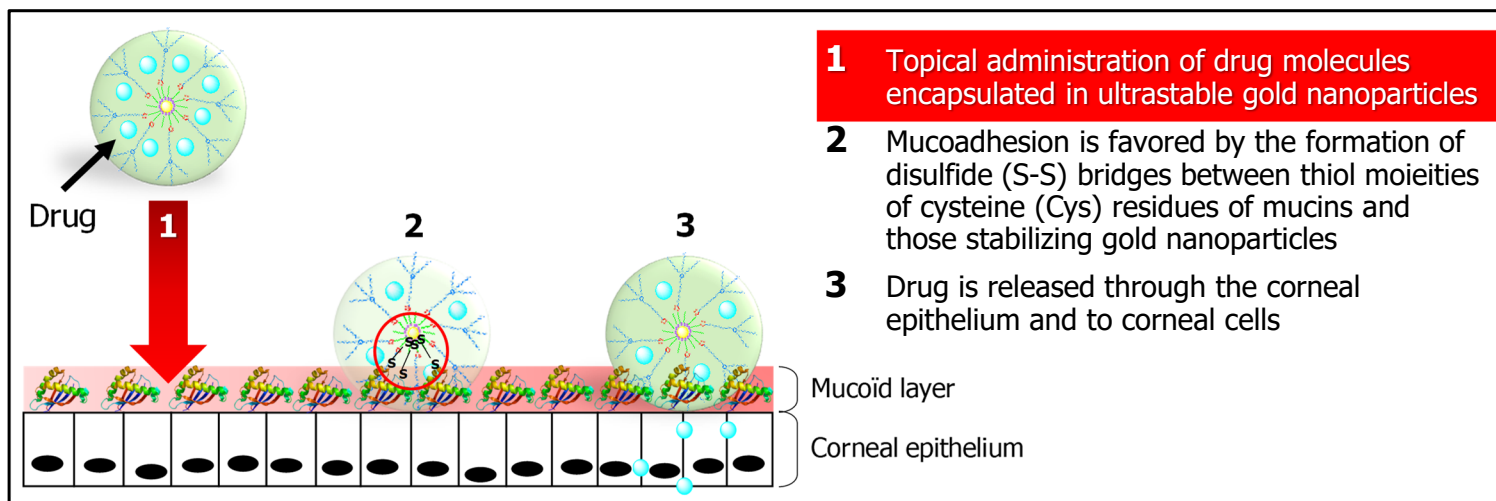
Unmet need(s) Pharmacological vector to increase the corneal residence time of drugs

Solutions Ultrastable mucoadhesive gold nanoparticles

Description The team of Prof Boisselier has developed a new ocular drug nanotechnology-based vector increasing the residence time of a medicament to a mucoid surface, such as the cornea.

Ultrastable gold nanoparticles display mucoadhesive properties that have the potential of efficiently delivering anti-inflammatory drugs, such as those prescribed after cataract surgery.

Increasing corneal residence time can increase the efficiency of drugs, thereby contributing to reduce frequency of administration, treatment duration, and risk of post-surgical infection.



Strengths Mucoadhesion increases the corneal residence time of therapeutics, thereby increasing the efficiency and accelerating the treatment

Opportunity SOVAR and Université Laval seek a partner for co-development, licensing, or commercialization of this technology

Intellectual property Boisselier É, M Ouellette, V Pernet, and M Omar (2018). Ultrastable gold nanoparticles for drug delivery applications and synthesis thereof. *Patent pending*. Assignee: Université Laval