Technology/ Title	Constructing colloidal delivery vehicles based on amphiphilic bioresorbable copolymers for vaccines and therapeutics	
Subtitle		
Technology Type	■ Biotechnology	☐Device/Diagnostics
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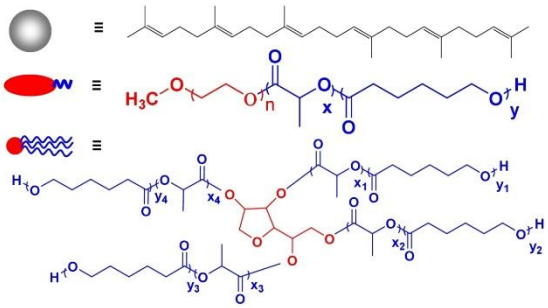
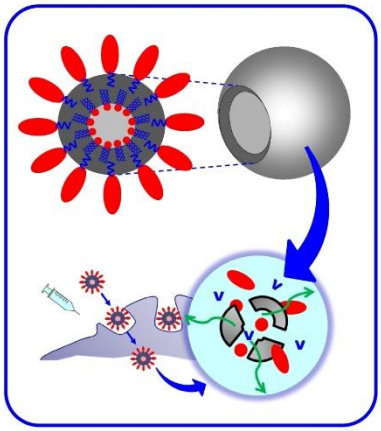
Link	https://iv.nhri.edu.tw/940703%e9%bb%83%e6%98%8e%e7%86%99/	
Technology Description	Polysorbasome (PSS, polymeric absorbable vehicle) is a colloidal vehicle made from amphiphilic bioresorbable copolymers (ABCs, PEGylated polyesters/sorbitan polyesters). Structural features allow the vesicles to act as an immunogenic depot for sustained delivery of vaccine antigens and to be absorbed post-vaccination, suggesting new insights into innovative vaccine design. These novel polysorbasomes have versatile advantages over common vaccine formulations, as follows: soft for easy injection; safe for massive vaccination; small for cell recognition; smart for antigen immunoavailability; simple for reducing cost; stimulatory for eliciting appropriate immunity. Fields of application and market potential are biodegradable controlled-release vaccine and drug delivery systems, cancer immunotherapy and mucosal delivery.	
Intellectual Property	PEGylated polyesters: TW I383806; US 8,444,993. Sorbitan polyesters: TW I598114; US 10,172,945; AU 2016215757.	
Key Publications	ACS Applied Materials & Interfaces. 2018;10:12553-12561. Journal for ImmunoTherapy of Cancer. 2020;8:e001022.	
Business Opportunity	License out and/or collaboration and sponsored research	

Concept of polysorbasome

- **Colloidal vesicles based on amphiphilic bioresorbable copolymers**





Patents:

TW I383806; US 8,444,993

TW I598114; US 10,172,945; AU 2016215757