

Abstract Submitted  
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**Hydrodynamic tether extrusion from “gelly” vesicles** KARINE GUEVORKIAN, SEBASTIEN KREMER, FRANCOISE BROCHARD-WYART, Institut Curie — Extrusion of cell tethers requires the detachment of the plasma membrane and can be used to probe the strength of membrane-cytoskeleton adhesion. We have studied the hydrodynamic extrusion of tethers from red blood cells [1] and developed a theoretical model based on permeation of lipids through the network of membrane proteins linked to the cytoskeleton [2]. Our aim here is to probe the model on biomimetic systems, namely lipid vesicles filled with artificial cytoskeleton made of synthetic or biological gels, where we can adjust the membrane-cytoskeleton coupling. The properties of tubes extruded from these “gelly” vesicles will be compared to simple vesicles on one hand, and to red blood cells or human carcinoid BON cells on the other. [1] N. Borghi et al, *Biophys. J.* 93 (2007) [2] F. Brochard-Wyart, et al, *Proc. Natl. Acad. Sci. USA*, 103 (2006)

Karine Guevorkian  
Institut Curie

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