Article:
Torcello-Gómez, MA, Boudard, C and Mackie, AR orcid.org/0000-0002-5681-0593 (2018) Calcium Alters the Interfacial Organization of Hydrolyzed Lipids during Intestinal Digestion. Langmuir, 34 (25). pp. 7536-7544. ISSN 0743-7463

https://doi.org/10.1021/acs.langmuir.8b00841

SUPPORTING INFORMATION

CALCIUM ALTERS THE INTERFACIAL ORGANISATION OF HYDROLYSED LIPIDS DURING INTESTINAL DIGESTION

Amelia Torcello-Gómez[a,*], Chloé Boudard[a,b] and Alan R. Mackie[a]

[a]School of Food Science and Nutrition, University of Leeds, Leeds, LS2 9JT, United Kingdom.

[b]Lycée Agro-Viticole de Bordeaux-Blanquefort, 33290 Blanquefort, France.

*Corresponding author: M.A.TorcelloGomez@leeds.ac.uk (A. Torcello-Gómez)

TABLE OF CONTENTS:

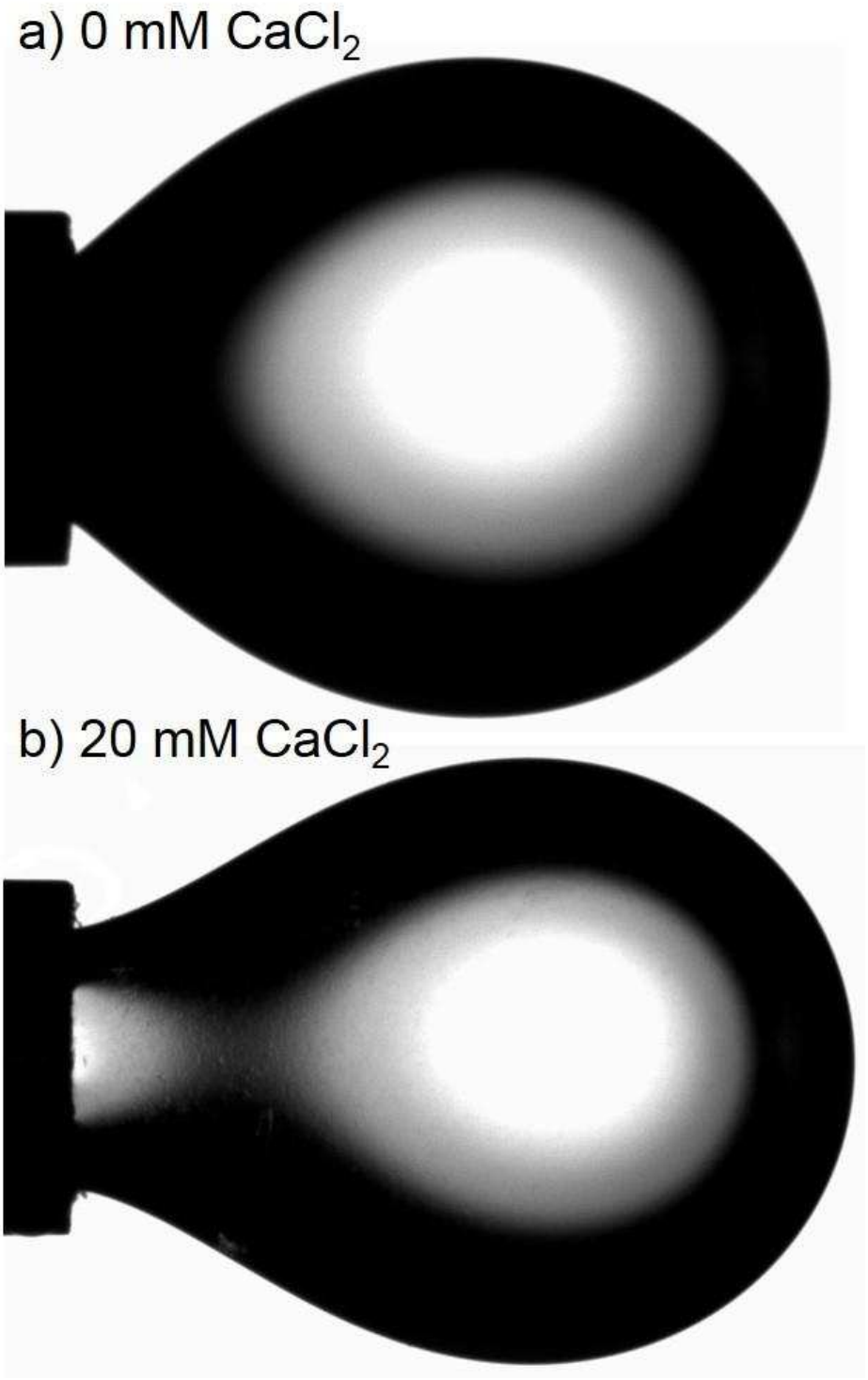

Figure S1: Purified sunflower oil droplets formed at the tip of the capillary immersed in 1 mg/mL active lipase aqueous solution (2 mM BIS-TRIS, 150 mM NaCl, pH 7, 37 °C) in the absence a) or presence of $CaCl_2$ b).

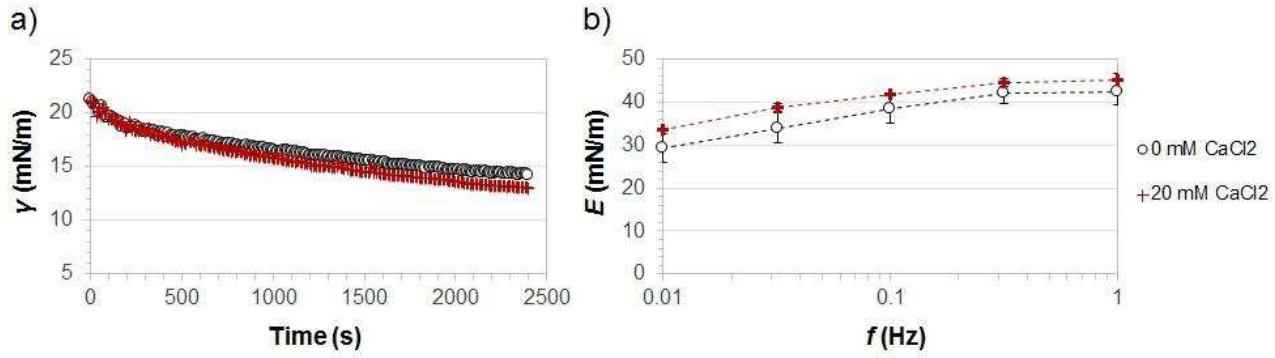

Figure S2: a) Interfacial tension versus time and b) dilatational modulus versus frequency after 40 min of interfacial layer formation, for inactive lipase (1 mg/mL) aqueous solutions (2 mM BIS-TRIS, 150 mM NaCl, pH 7, 37 °C) containing different $CaCl_2$ concentrations (0 and 20 mM). Lines in b) are a guide for the eye.

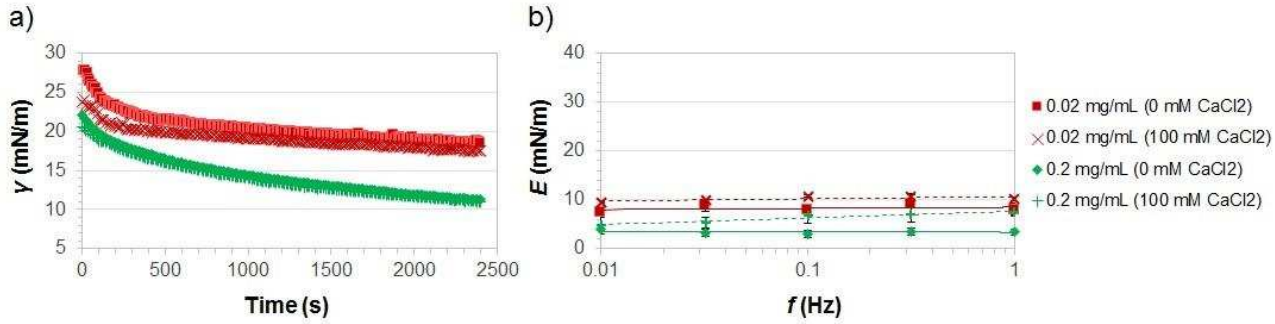

Figure S3: a) Interfacial tension versus time and b) dilatational modulus versus frequency after 40 min of interfacial layer formation, for active lipase aqueous solutions (2 mM BIS-TRIS, 150 mM NaCl, pH 7, 37 °C) at different bulk concentrations (0.02 and 0.2 mg/mL) containing different $CaCl_2$ concentrations (0 and 100 mM). Lines in b) are a guide for the eye.

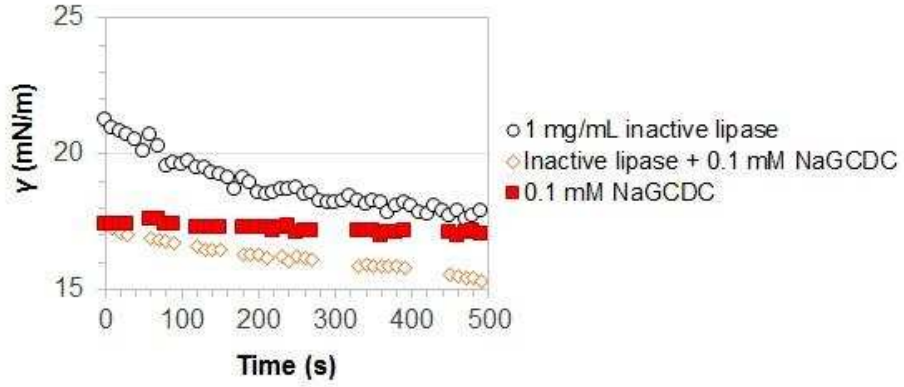

Figure S4: Insert from Figure 6b. Interfacial tension versus time for 1 mg/mL inactive lipase (open symbols) aqueous solutions (2 mM BIS-TRIS, 150 mM NaCl, pH 7, 37 °C) in the absence and presence of 0.1 mM NaGCDC). The curve corresponding to 0.1 mM NaGCDC alone (closed squares) is also included as a reference.

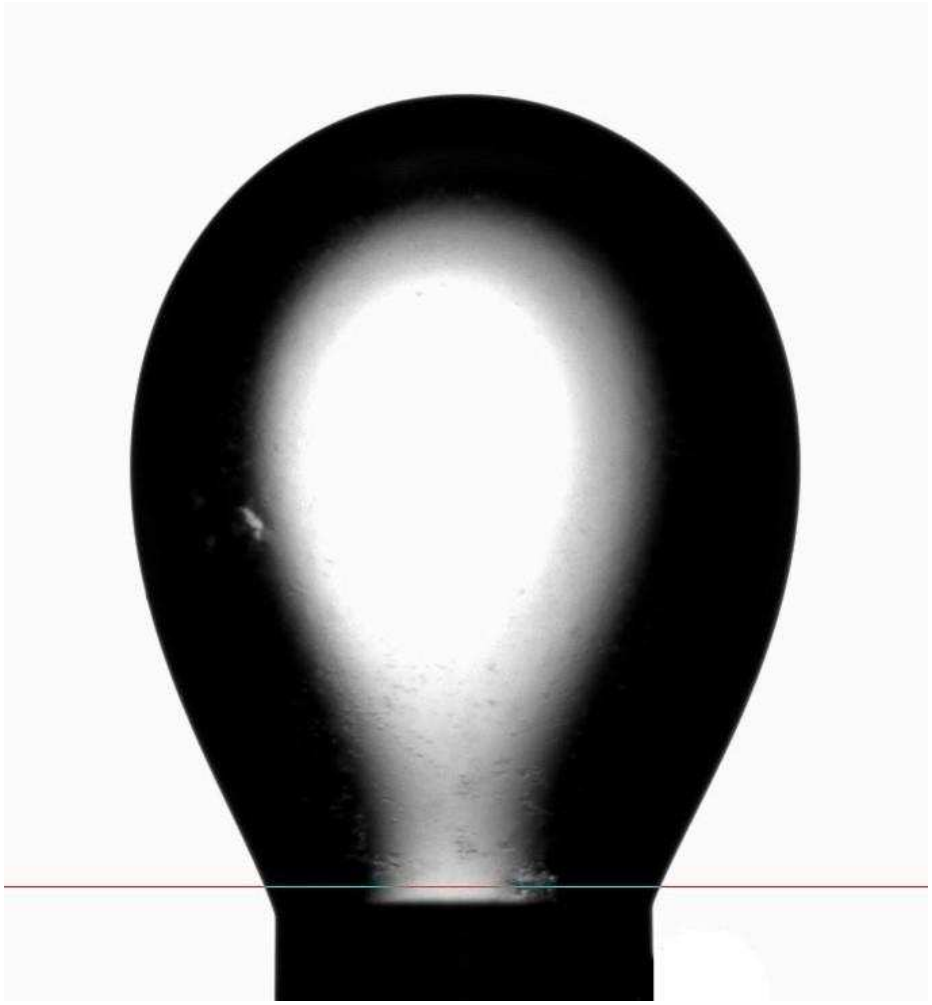

Figure S5: Purified sunflower oil droplet formed at the tip of the capillary immersed in 1 mg/mL active lipase aqueous solution (2 mM BIS-TRIS, 150 mM NaCl, pH 7, 37 °C) in the presence of 0.1 mM NaGCDC and 10 mM $CaCl_2$.

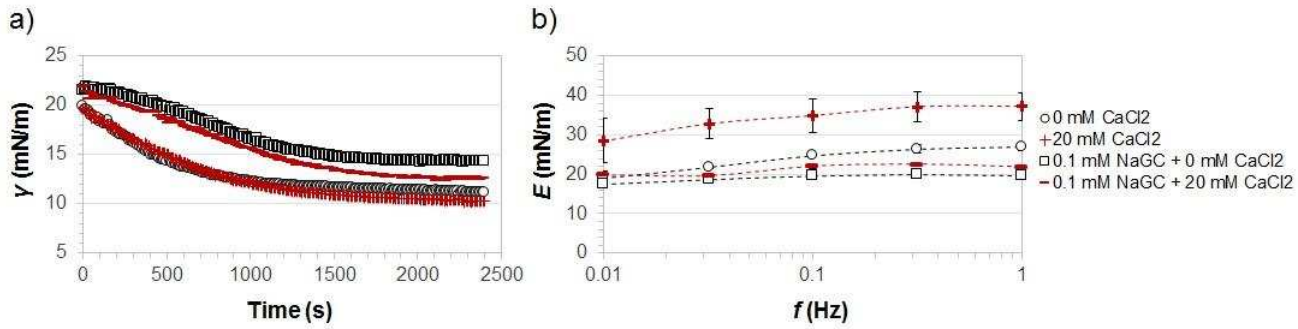

Figure S6: a) Interfacial tension versus time and b) dilatational modulus versus frequency after 40 min of interfacial layer formation, for inactive lipase (1 mg/mL) + 0.1 mM NaGC aqueous solutions (2 mM BIS-TRIS, 150 mM NaCl, pH 7, 37 °C) containing different $CaCl_2$ concentrations (0 and 20 mM). The curves of pure NaGC are also included. Lines in b) are a guide for the eye.