

Supporting Information

Biological thermal performance of organic and inorganic aerogels as patches for photothermal therapy

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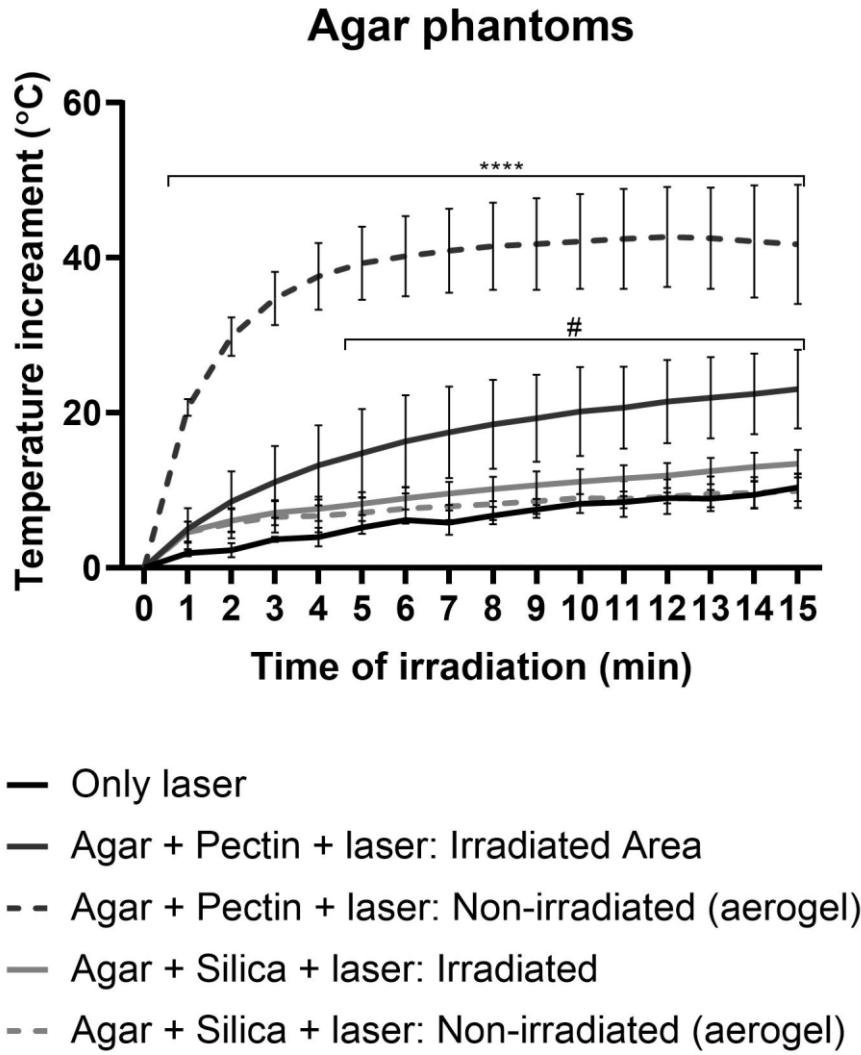


Figure S1: Temperature increment observed for agar phantoms throughout laser irradiation with a NIR laser. Statistical significance represents **** $p < 0.0001$ compared with all the other testing groups and # $p < 0.05$ compared with all the other groups except the group irradiated on top of a pectin aerogel: non-irradiated area (corresponds to the aerogel temperature).

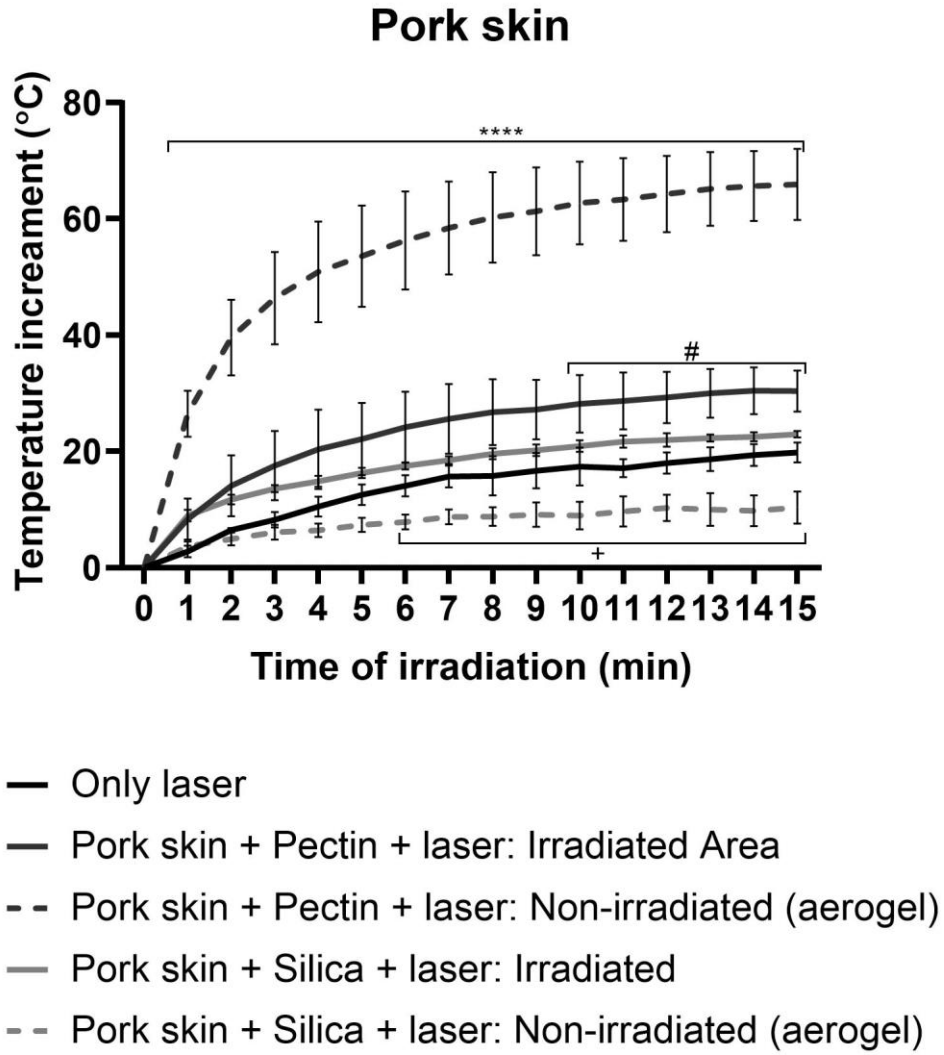


Figure S2: Temperature increment observed for pig skin ex vivo grafts throughout laser irradiation with a NIR laser. Statistical significance represents **** $p < 0.0001$ compared with all the other testing groups; # $p < 0.05$ compared with Only laser group, and + $p < 0.05$ compared with groups directly irradiated from both aerogels.

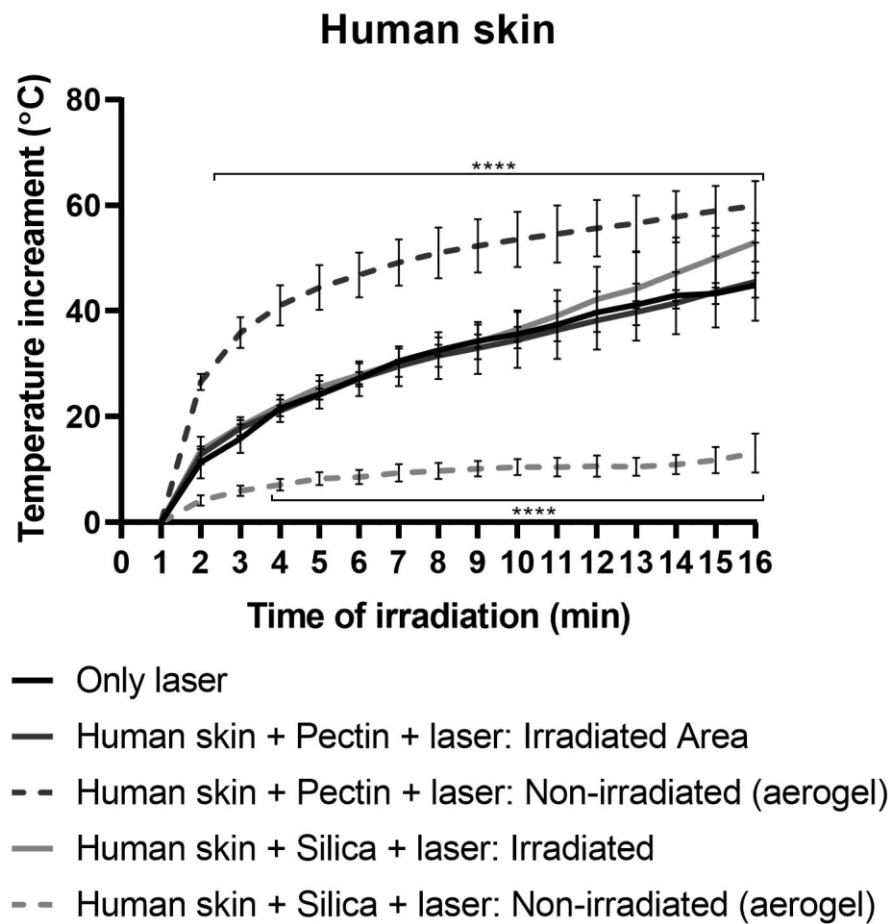


Figure S3: Temperature increment observed for human skin ex vivo grafts throughout laser irradiation with a NIR laser. Statistical significance represents **** $p < 0.0001$ compared with all the other testing groups.

Table S1. Summarized results from skin compatibility tests.

Aerogel Material	Control time after patch removal	Type of reaction¹	Mean daily irritation score (Mdis)²	% of reactive subjects
Pectin-based aerogel	15 min	None	0	0
	24 h	None	0	0
	48 h	None	0	0
Silica-based aerogel	15 min	None	0	0
	24 h	None	0	0
	48 h	None	0	0

¹ A dermatologist evaluated the skin conditions looking for any visible signs of reactivity such as erythema, oedema, vesicle, bulla, papule or scab. ² Individual daily irritation score is primarily calculated for each individual (I_{dis}) based on the sum of marks attributed to visible signs depending on their intensity: erythema, oedema, vesicle, papule (from 1 to 2 or 3) and bulla, scab (2 if present). Then, the mean daily irritation score (M_{dis}) was calculated according $M_{dis} = \sum (I_{dis}) / \text{number of subjects}$.