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Supporting Information for

Comparison of the efficacy of seven types of microneedles for treating rabbit hypertrophic scar model

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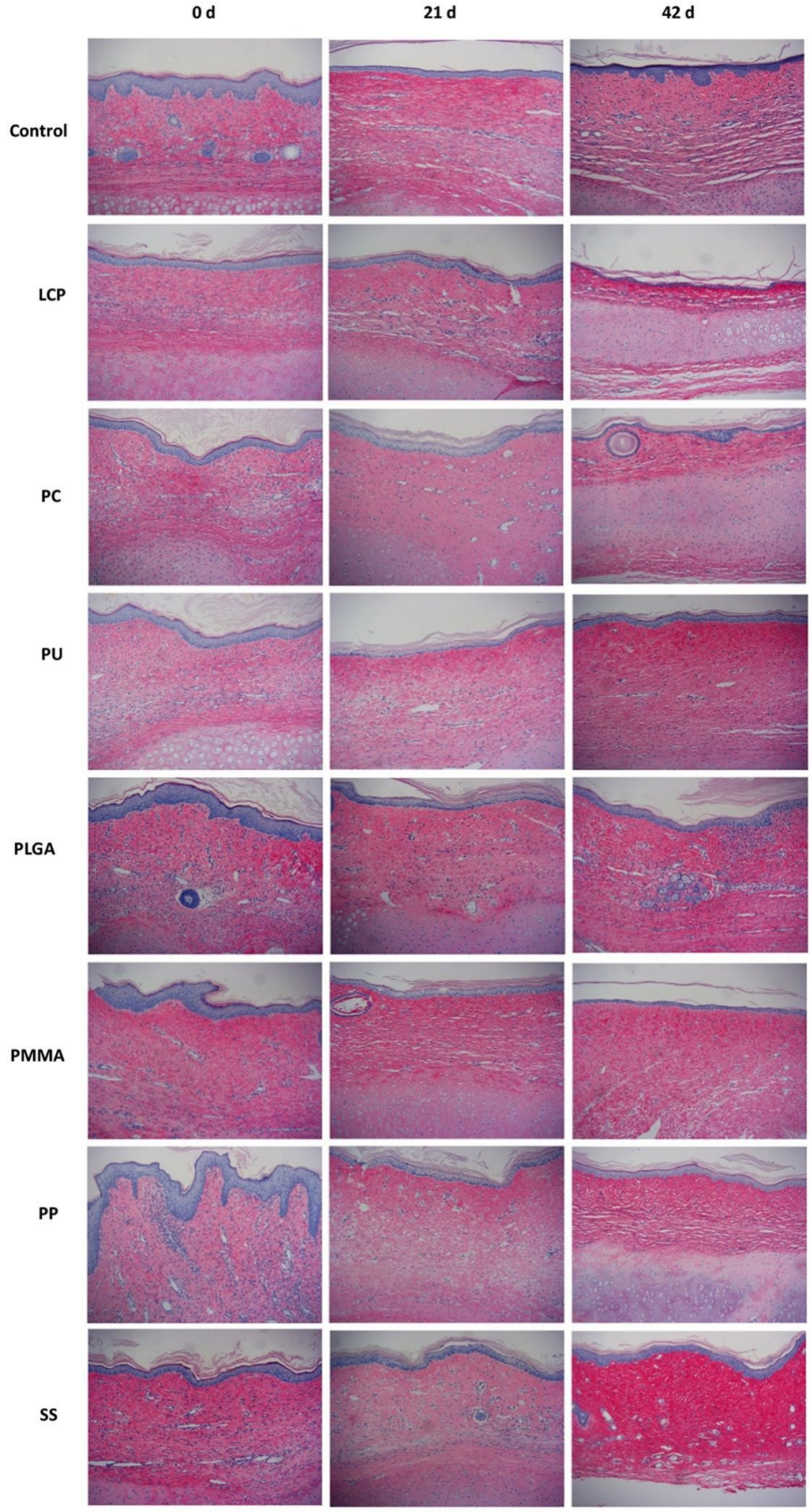
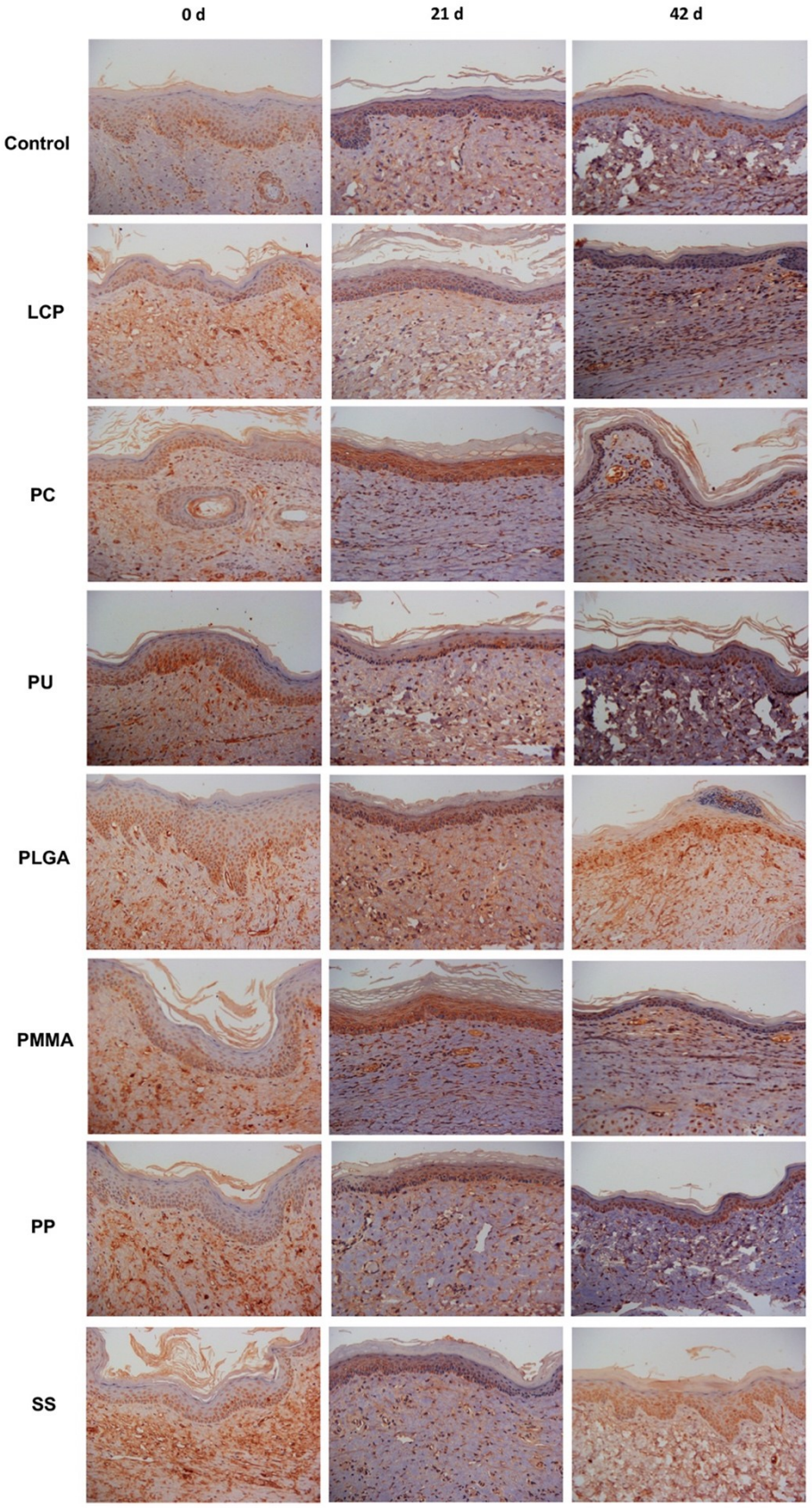
Table S1. The biomarkers expressions of each microneedle treated groups.

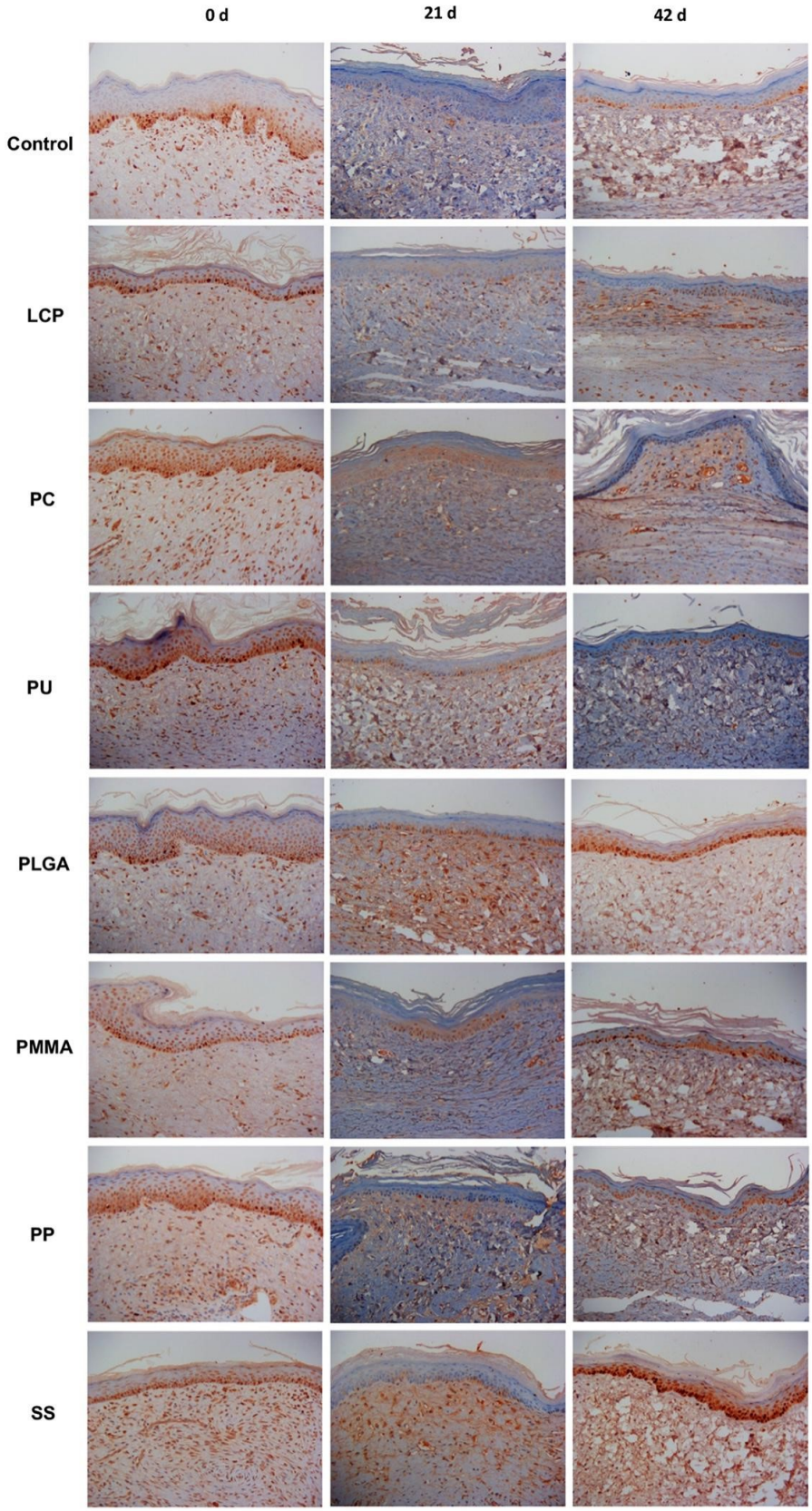
Picro-Sirius Red Staining			α-SMA			Ki-67			TGF-β1	
0 day	**21 day**	**42 day**	**0 day**	**21 day**	**42 day**	**0 day**	**21 day**	**42 day**	**0 day**	**21 day**
1.85 ± 0.06	1.78 ± 0.03	1.82 ± 0.09	1.94 ± 0.13	1.99 ± 0.09	2.44 ± 0.14	2.41 ± 0.08	2.30 ± 0.06	2.32 ± 0.09	1.00 ± 0	1.00 ± 0
1.99 ± 0.11	1.59 ± 0.09	1.74 ± 0.07	1.90 ± 0.04	2.11 ± 0.05	2.34 ± 0.06	2.01 ± 0.13	1.71 ± 0.04	1.89 ± 0.08	0.04 ± 0.01	0.74 ± 0.24
2.32 ± 0.09	1.68 ± 0.06	1.50 ± 0.06	2.20 ± 0.08	2.54 ± 0.11	2.55 ± 1.13	2.51 ±0.14	1.25 ± 0.03	1.81 ± 0.12	0.92 ± 0.05	0.70 ± 0.11
2.43 ± 0.07	2.22 ± 0.10	1.70 ± 0.08	2.38 ± 0.06	2.40 ± 0.06	2.20 ± 0.04	2.20 ± 0.07	1.81 ± 0.11	1.34 ± 0.03	1.02 ± 0.05	3.08 ± 0.69
2.59 ± 0.11	1.93 ± 0.06	1.93 ± 0.03	2.27 ± 0.09	2.06 ± 0.13	2.25 ± 0.11	1.92 ±0.07	2.05 ± 0.06	2.32 ± 0.11	1.07 ± 0.13	0.95 ± 0.07
2.04 ± 0.02	1.77 ± 0.05	1.71 ± 0.06	2.52 ± 0.04	2.01 ± 0.04	2.34 ± 0.03	2.61 ± 0.16	1.24 ± 0.04	1.67 ± 0.09	1.52 ± 0.1	0.91 ± 0.19
1.39 ± 0.04	1.23 ± 0.04	1.91 ± 0.08	2.19 ± 0.07	2.41 ± 0.03	2.62 ± 0.11	2.08 ± 0.07	1.67 ± 0.04	1.50 ± 0.05	1.35 ± 0.16	1.07 ± 0.34
2.23 ± 0.05	1.76 ± 0.06	2.78 ± 0.10	2.49 ± 0.1	2.43 ± 0.16	1.93 ± 0.04	2.11± 0.01	2.24 ± 0.05	2.77 ± 0.18	1.18 ± 0.2	3.97 ± 1.78



SI Figure S1: Evaluation of collagen deposition by Picro-Sirius Red Staining. The collagen in the tissue is stained for red color.



SI Figure S2 The expression of α-SMA in the scar tissue during the MN treatment. The target protein is stained for brown color. α-SMA mainly locates at the cells of dermis.



SI Figure S3 The expression of Ki-67 in the scar tissue during the MN treatment. The target protein is stained for brown color. Ki-67 locates at the epidermal basal layer as well as dermis.

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