

Table S1: Supplementary table Forearm

| | NSS | | SS | | AR | | AD | | SS vs | SS vs | SS vs | NSS vs | NSS vs | AD vs |
|-------------------------------|-----|-------------------|----|-------------------|----|------------------|----|------------------|-------|-------|-------|--------|--------|-------|
| | n | median (range) | n | median (range) | n | median (range) | n | median (range) | NSS | AD | AR | AD | AR | AR |
| Water levels [$g_w/100g_t$] | | | | | | | | | | | | | | |
| 0 | 29 | 31.3 (23.3-41.2) | 27 | 30.4 (21.9-41.6) | 26 | 30.6 (23.2-37.1) | 11 | 29.3 (23.3-35.8) | ns. | ns. | ns. | ns. | ns. | ns. |
| 4 | 29 | 33.1 (26.8-40.5) | 27 | 32.7 (23.2-39.7) | 26 | 31.8 (25.3-38.0) | 11 | 32.5 (28.0-37.8) | ns. | ns. | ns. | ns. | ns. | ns. |
| 8 | 29 | 41.4 (37.3-49.0) | 27 | 42.4 (28.4-50.8) | 26 | 40.2 (33.5-49.5) | 11 | 43.1 (38.0-49.8) | ns. | ns. | ns. | ns. | ns. | ns. |
| 12 | 29 | 54.4 (45.4-60.8) | 27 | 54.8 (37.3-62.1) | 26 | 53.8 (43.9-60.7) | 11 | 55.6 (47.5-60.5) | ns. | ns. | ns. | ns. | ns. | ns. |
| 16 | 29 | 62.8 (52.2-65.8) | 27 | 63.2 (48.7-65.9) | 26 | 62.9 (55.1-66.1) | 11 | 62.8 (58.0-65.3) | ns. | ns. | ns. | ns. | ns. | ns. |
| 20 | 29 | 66.0 (58.2-67.9) | 27 | 66.2 (59.0-68.3) | 26 | 65.9 (61.9-68.1) | 11 | 65.6 (62.7-67.8) | ns. | ns. | ns. | ns. | ns. | ns. |
| 24 | 29 | 66.9 (61.3-68.9) | 27 | 67.4 (64.3-68.8) | 26 | 66.9 (64.3-69.2) | 11 | 67.0 (64.3-68.7) | ns. | ns. | ns. | ns. | ns. | ns. |
| 28 | 29 | 67.7 (62.8-68.9) | 27 | 68.1 (66.0-69.2) | 26 | 67.4 (65.5-69.6) | 11 | 67.1 (65.5-68.6) | ns. | ns. | ns. | ns. | ns. | ns. |
| 32 | 29 | 68.2 (65.9-69.2) | 27 | 68.5 (66.7-70.2) | 26 | 67.8 (66.0-69.8) | 11 | 67.2 (66.2-69.0) | ns. | ns. | ns. | ns. | ns. | ns. |
| NMF levels [a.u.] | | | | | | | | | | | | | | |
| 0 | 29 | 1.2 (0.6-1.7) | 27 | 1.2 (0.8-1.8) | 26 | 1.2 (0.8-1.7) | 11 | 1.2 (0.7-1.7) | ns. | ns. | ns. | ns. | ns. | ns. |
| 4 | 29 | 1.3 (0.7-1.9) | 27 | 1.4 (0.9-2.0) | 26 | 1.4 (0.7-2.0) | 11 | 1.2 (0.7-1.7) | ns. | 0.095 | ns. | ns. | ns. | ns. |
| 8 | 29 | 1.1 (0.6-2.0) | 27 | 1.1 (0.7-2.0) | 26 | 1.0 (0.6-1.9) | 11 | 0.9 (0.6-1.4) | ns. | ns. | ns. | ns. | ns. | ns. |
| 12 | 29 | 0.6 (0.3-1.4) | 27 | 0.6 (0.5-1.4) | 26 | 0.6 (0.4-1.5) | 11 | 0.5 (0.4-0.8) | ns. | ns. | ns. | ns. | ns. | ns. |
| 16 | 29 | 0.5 (0.3-0.9) | 27 | 0.4 (0.3-0.8) | 26 | 0.4 (0.3-0.8) | 11 | 0.4 (0.3-0.5) | ns. | ns. | ns. | ns. | ns. | ns. |
| Ceramides levels [a.u.] | | | | | | | | | | | | | | |
| 0 | 29 | 57.8 (27.3-121.7) | 27 | 57.2 (38.5-108.8) | 26 | 61.0 (38.1-97.1) | 11 | 57.5 (37.1-96.8) | ns. | ns. | ns. | ns. | ns. | ns. |
| 4 | 29 | 54.3 (29.5-107.5) | 27 | 56.9 (44.6-90.6) | 26 | 56.7 (32.5-80.3) | 11 | 52.7 (39.6-69.4) | ns. | ns. | ns. | ns. | ns. | ns. |
| 8 | 29 | 41.9 (24.4-77.6) | 27 | 44.3 (38.8-65.4) | 26 | 42.1 (17.9-55.9) | 11 | 38.6 (30.3-50.1) | 0.059 | 0.001 | 0.065 | ns. | ns. | ns. |
| 12 | 29 | 35.0 (21.1-59.2) | 27 | 38.6 (27.5-50.8) | 26 | 34.4 (23.5-47.4) | 11 | 33.4 (25.8-43.0) | 0.064 | 0.004 | 0.060 | 0.096 | ns. | ns. |
| 16 | 29 | 29.8 (18.4-44.8) | 27 | 31.3 (21.9-39.8) | 26 | 28.5 (20.7-42.1) | 11 | 26.8 (21.8-32.0) | ns. | 0.019 | ns. | 0.064 | ns. | ns. |

AD: atopic dermatitis; AR: allergic rhinoconjunctivitis; a.u.: arbitrary units; $g_w/100g_t$: grams of water/100 grams of wet tissue; NMF: natural moisturizing factor; ns: no statistically significant difference; NSS: non-sensitive skin; SS: sensitive skin.