### **ONLINE REPOSITORY**

# Transcutaneous yellow fever vaccination of subjects with or without atopic dermatitis

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### Figure legends

**Figure E1.** Vaccine-induced IFN $\gamma$ + YFV-specific CD4+ and CD8+ T cell responses. The kinetics and magnitude of YFV-specific CD4+ T cells (A and B) or CD8+ T cells (C and D) were measured in subjects vaccinated by the subcutaneous route (A and C) or the transcutaneous route (B and D). The frequency of virus-specific T cells was measured by stimulating PBMC with purified YFV and measuring the frequency of total IFN $\gamma$ + T cells. Error bars represent 95% confidence intervals. Numbers at bottom of each panel denote *p* values of the comparisons between AD and NA at days 7, 14, and 30.

**Figure E2.** Effect of vaccination route on YFV-specific CD4+ and CD8+ T cell responses. The kinetics and magnitude of YFV-specific CD4+ T cells (A) or CD8+ T cells (B) were measured in subjects vaccinated by the subcutaneous (SC) and transcutaneous (TC) routes. The frequency of virus-specific T cells was measured by stimulating PBMC with purified YFV and measuring the frequency of total IFN $\gamma$ +TNF $\alpha$ +. Numbers at bottom of each panel denote *p* values of the comparisons between SC and TC for AD (red) and NA (blue) subjects at days 14 and 30.

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and 30.

## Figure E1. Vaccine-induced IFN<sub>γ</sub><sup>+</sup> YFV-specific CD4<sup>+</sup> and CD8<sup>+</sup> T cell responses.

The kinetics and magnitude of YFV-specific CD4<sup>+</sup> T cells (A and B) or CD8<sup>+</sup> T cells (C and D) were measured in subjects vaccinated by the subcutaneous route (A and C) or the transcutaneous route (B and D). The frequency of virus-specific T cells was measured by stimulating PBMC with purified YFV and measuring the frequency of total IFN $\gamma^+$  T cells. Error bars represent 95% confidence intervals. Numbers at bottom of each panel denote *p* values of the comparisons between AD and NA at days 7, 14,



Days After YFV Vaccination

## Figure E2. Effect of vaccination route on YFV-specific CD4<sup>+</sup> and CD8<sup>+</sup> T cell responses.

The kinetics and magnitude of YFV-specific CD4<sup>+</sup> T cells (A) or CD8<sup>+</sup> T cells (B) were measured in subjects vaccinated by the subcutaneous (SC) and transcutaneous (TC) routes. The frequency of virus-specific T cells was measured by stimulating PBMC with purified YFV and measuring the frequency of total IFN $\gamma^+$ TNF $\alpha^+$ . Numbers at bottom of each panel denote *p* values of the comparisons between SC and TC for AD (red) and NA (blue) subjects at days 14 and 30.



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# Table E1. Baseline Total IgE, $NT_{50},$ and day 30 $IFN\gamma^{+}TNF\alpha^{+}CD4^{+}/10^{6}\ CD4^{+},$

 $IFN\gamma^{+}TNF\alpha^{+}CD8^{+}/10^{6}$  CD8<sup>+</sup> counts. Geometric mean counts for each diagnostic group by route are

listed in red. N.D. denotes Not Determined.

		Diagnostic			$IFN\gamma^{+}TNF\alpha^{+}CD4^{+}$	$IFN\gamma^{+}TNF\alpha^{+}CD8^{+}$
Subject	Route	Group	Total lgE	NT <sub>50</sub>	/ 10 <sup>6</sup> CD4 <sup>+</sup>	/ 10 <sup>6</sup> CD8⁺
1	SC	AD	11	9894	372	1788
2			14	3161	42	396
3			19	6437	1354	3900
4			23	49703	753	1399
5			31	2411	421	3035
6			37	9419	1233	4267
7			78	1858	1189	5886
8			86	1369	1023	3938
9			120	2788	826	2162
10			181	2263	747	4449
11			295	4060	1035	4759
12			610	7516	777	4872
13			695	1257	N.D.	N.D.
14			14160	1931	130	958
			105	4002	569	2600
15		NA	3	5283	723	3871
16			3	3200	1438	7333
17			5	1836	1435	3518
18			6	3039	563	2625
19			7	5889	651	3025
20			9	13873	179	2972
21			10	1845	181	111
22			11	1529	N.D.	N.D.
23			12	3205	412	2102
24			14	5734	362	1751
25			16	1250	N.D.	N.D.
26			17	5177	630	3681
27			23	4445	451	479
28			40	822	536	1757
29			40	4096	611	1232
30			70	7758	283	4425
31			85	6422	N.D.	N.D.
32			102	10127	618	2389
33			104	1448	N.D.	N.D.
34			133	2757	377	588
			19	3504	502	1873

		Diagnostic			$IFN\gamma^{+}TNF\alpha^{+}CD4^{+}$	$IFN\gamma^{+}TNF\alpha^{+}CD8^{+}$
Subiect	Route	Group	Total laE	NT 50	/ 10 <sup>6</sup> CD4 <sup>+</sup>	/ 10 <sup>6</sup> CD8 <sup>+</sup>
35	тс	AD	16	7659	N.D.	N.D.
36			33	19297	N.D.	N.D.
37			40	5360	220	189
38			41	4483	397	1385
39			57	12406	653	1142
40			89	1664	191	359
41			172	4378	374	6193
42			174	2729	474	761
43			267	5267	407	2541
44			367	2985	N.D.	N.D.
45			701	2762	320	542
46			1260	6464	103	484
47			1463	467	158	194
48			1662	550	N.D.	N.D.
49			2473	2718	749	1527
50			3133	3660	426	5607
51			5480	6207	130	2781
52			37340	1881	162	220
			391	3532	288	926
					N.D.	N.D.
53		NA	2	6196	702	10651
54			4	9283	531	1230
55			6	8564	N.D.	N.D.
56			7	16854	245	369
57			15	2474	955	9353
58			21	7242	305	3135
59			28	16010	760	3680
60			36	9816	333	2689
61			39	5214	587	1894
62			51	4609	588	515
63			58	2330	N.D.	N.D.
64			158	4051	N.D.	N.D.
65			294	5835	519	696
66			396	1733	578	853
			29	5840	516	1839