

# Supplementary Table

## OMEF Biochip for Evaluating Red Blood Cell Deformability Using Dielectrophoresis as a Diagnostic Tool for Type 2 Diabetes Mellitus

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# Supplementary Table

**Table S1** Summary of health, demographic, and DEP study data from 15 healthy individuals and 31 diabetic patients enrolled in the study.

Acronym	Legend	Acronym	Legend	Acronym	Legend
G	Gender	M	Medications	CC	Cardiovascular Complications
DOB	Date of Birth	G	Glycemia	ST	Statin Therapy
H	Height	P	Pregnant	KC	Kidney Complication
W	Weight	S	Smoking (N=Never, E=Ex-smoker, S=Smoking)	S	Strain
BMI	Body Mass Index	A	Alcohol Consumption (N, P, O, R)	SF	Stretch Factor
A	Age	PH	Physical Activity (30, M2, L2, O, N)	CD	Cell Diameter
SCA	Sickle Cell Anemia	GM	Blood Glucose Monitoring	RT	Relaxation Time
Hb	HbA1c	II	Regular Insulin Injection	NS	Normalized Strain
Th	Thalassemia	BSCM	Blood Sugar Control Medication	NSF	Normalized Stretch Factor
SCL	Serum Creatine Level	DFH	Diabetes Family History	I-S-A	Insulin, Synjerdy, Ameryl
H#	Healthy Individual	D#	Diabetic Patient	---	No Data on Record

ID	Biological Data					Medical Data				Medical Review										DEP Study Data					
	G	A	H	W	BMI	SCL	Hb	M	G	S	A	PH	GM	II	BS CM	DF H	CC	ST	K C	S	SF	CD	RT	NS	NSF
H1	F	32	173	71	23.7	---	---	---	---	N	O	30	Y	---	---	N	N	N	N	0.407	1.007	6.101	0.58	1.272	3.145
H2	M	37	178	80	25.2	---	---	---	---	N	O	30	N	---	---	N	N	N	N	0.592	1.514	6.162	0.62	2.608	6.666
H3	F	35	162	82	31.2	---	---	---	---	N	O	M2	N	---	---	N	N	N	N	0.647	1.458	6.908	0.48	2.766	6.231
H4	F	26	150	70	31.1	---	---	---	---	N	N	L2	N	---	---	Y	N	N	N	0.693	1.54	6.4	0.527	2.101	4.67
H5	M	33	168	76	26.9	---	---	---	---	Y	O	N	N	---	---	Y	N	N	N	0.417	0.953	6.413	0.715	1.59	3.636
H6	F	32	160	60	23.4	---	---	---	---	E	O	O	N	---	---	N	N	N	N	0.193	0.901	5.475	0.862	0.731	3.416
H7	M	36	188	97	27.4	---	---	---	---	E	O	M2	N	---	---	N	N	N	N	0.795	1.315	7.544	0.641	4.845	8.01
H8	F	38	160	57	22.3	---	---	---	---	N	N	N	N	---	---	---	N	---	---	1.002	1.671	7.822	0.582	2.333	3.891
H9	F	32	154	53	22.3	---	---	---	---	N	N	O	N	---	---	N	N	N	N	0.634	1.747	8.357	0.664	1.324	3.65
H10	F	34	150	53	23.6	---	---	---	---	N	N	O	N	---	---	Y	N	N	N	0.92	1.685	7.345	0.846	1.577	2.888

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H11	M	35	173	72	24.1	---	---	---	---	S	O	E	N	---	---	N	N	N	N	0.625	1.492	7.369	---	1.577	3.764
H12	F	58	166	72	26.1	---	---	---	---	S	O	30	N	---	---	Y	N	N	N	0.747	1.708	7.168	---	1.865	4.269
H13	F	32	155	65	27.1	---	---	---	---	N	N	M2	N	---	---	Y	N	N	N	0.688	1.575	6.205	---	1.868	4.276
H14	M	50	185	90	26.3	---	---	---	---	E	O	L2	N	---	---	N	N	Y	N	0.519	1.415	6.175	---	2.172	5.923
H15	F	62	153	85	36.3	---	---	---	---	N	N	O	N	---	---	Y	N	N	N	0.634	1.747	8.882	---	2.69	7.417
D1	M	62	177	100	31.9	83	7.9	I-S-A*	U	S	O	O	Y	Y	Y	Y	N	Y	N	0.452	0.867	8.489	0.67	0.645	1.238
D2	M	70	165	80	29.4	100	6.9	I-S-A*	C	N	N	30	Y	Y	Y	Y	Y	N	Y	0.312	0.842	7.726	0.65	0.509	1.377
D3	M	63	169	140	49	68	6	I-S-A*	C	E	P	30	Y	N	Y	N	N	N	N	0.417	0.883	7.298	0.63	0.905	1.914
D4	M	72	172	76	25.7	77.4	6.3	I-S-A*	C	N	N	O	Y	Y	N	Y	Y	Y	---	0.693	1.225	8.002	0.536	1.782	3.152
D5	M	69	172	90	30.4	151	9	I-S-A*	U	E	P	30	Y	Y	Y	Y	Y	Y	Y	0.262	0.84	8.575	0.673	0.511	1.639
D6	M	69	177	76	24.3	72	6.4	I-S-A*	C	E	N	O	N	N	Y	Y	Y	Y	Y	0.22	0.902	6.961	0.535	0.348	1.431
D7	F	77	152	81	35.1	89	6.9	I-S-A*	C	N	N	O	N	N	Y	Y	N	Y	Y	0.171	0.737	7.372	0.639	0.506	2.186
D8	M	55	173	80	26.7	73	7.5	I-S-A*	U	N	N	M2	Y	N	Y	Y	Y	Y	N	0.101	0.699	8.17	0.542	0.253	1.744
D9	M	66	191	91	24.9	Nor	6.2	I-S-A*	C	E	O	M3 O	Y	N	Y	Y	N	Y	N	0.44	1.21	6.626	0.562	0.807	2.218
D10	F	58	151	81	35.5	53	7.2	I-S-A*	C	N	N	O	Y	Y	Y	Y	N	Y	N	0.271	0.819	8.353	0.615	0.933	2.817
D11	M	47	158	60	24	119	6.6	I-S-A*	C	N	N	M2	N	N	Y	Y	Y	Y	Y	0.158	0.684	11.48	0.889	0.272	1.174
D12	F	54	164	116	43.1	---	7.6	I-S-A*	C	N	N	O	Y	N	Y	Y	N	Y	N	0.203	1.02	10.914	0.818	0.134	0.674
D13	M	69	160	79	30.9	133	10	I-S-A*	U	E	N	M3 O	Y	Y	Y	Y	Y	Y	Y	0.371	1.123	9.28	0.661	0.286	0.864
D14	M	45	179	134	41.8	141	7.9	I-S-A*	U	E	P	O	Y	Y	Y	Y	N	Y	Y	0.176	0.76	11.336	0.823	0.22	0.951
D15	M	78	175	74	24.2	78	6.2	I-S-A*	C	E	N	M3 O	N	N	Y	N	N	Y	N	0.41	1.181	11.07	0.896	0.282	0.811
D16	F	37	163	83	31.2	27.9	6	I-S-A*	C	E	N	N	Y	N	Y	Y	N	N	N	0.32	1.149	8.15	0.375	0.236	0.847
D17	M	45	160	84	32.8	77	6	I-S-A*	C	N	N	N	N	N	Y	Y	N	Y	N	0.611	1.149	9.512	0.788	1.129	2.123
D18	M	35	167	69	24.7	Nor	10	I-S-A*	U	N	N	M3 O	Y	Y	Y	Y	N	Y	N	0.258	0.933	8.742	0.666	0.299	1.084
D19	M	76	168	80	28.3	---	7.1	I-S-A*	C	E		N	Y	Y	Y	Y	Y	Y	Y	0.511	1.203	9.53	0.709	0.765	1.8
D20	F	67	154	58	24.5	84	5.4	I-S-A*	C	N	N	O	Y	N	N	Y	Y	Y	N	0.272	0.849	9.701	0.841	0.314	0.98

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D21	F	55	156	75	30.8	51	7.7	I-S-A*	U	N	N	M2	Y	Y	Y	Y	Y	Y	Y	0.419	1.313	6.938	0.837	0.459	1.438
D22	M	77	163	108	40.6	---	---	I-S-A*	---	E	N	L2	Y	Y	Y	---	N	Y	Y	0.366	0.867	9.729	0.541	1.096	2.597
D23	M	61	162	101	38.5	64	7.6	I-S-A*	U	E	N	L2	Y	Y	Y	Y	N	Y	Y	0.395	1.052	10.295	0.442	0.429	1.142
D24	M	52	160	80	31.3	---	7.6	I-S-A*	C	E	N	O	Y	Y	Y	Y	Y	Y	N	0.315	0.99	10.941	0.919	0.288	0.907
D25	F	85	147	81	37.5	94	6.4	I-S-A*	C	N	N	O	Y	N	Y	Y	Y	Y	Y	0.319	0.983	9.507	0.986	0.244	0.751
D26	M	45	169	81	28.4	86	10.1	I-S-A*	U	E	P	O	Y	Y	Y	Y	N	N	N	0.41	1.286	6.403	0.821	0.477	1.497
D27	M	81	166	102	37	---	7.1	I-S-A*	U	N	N	M3 O	Y	N	Y	N	Y	Y	Y	0.338	0.8	9.291	0.5	1.286	3.048
D28	F	53	155	81	33.7	36	9.6	I-S-A*	U	S	N	N	Y	Y	Y	Y	N	Y	N	0.377	1.005	7.874	0.633	0.47	1.253
D29	M	71	165	65	23.9	---	6.2	I-S-A*	C	N	O	M3 O	Y	N	Y	Y	N	Y	Y	0.586	1.476	5.753	---	1.201	3.023
D30	F	50	159	77	30.5	48	7	I-S-A*	C	N	N	O	N	N	Y	Y	N	Y	N	0.29	1.02	7.905	---	1.524	5.358
D31	M	58	167	98	35.1	83	6.7	I-S-A*	C	N	N	O	Y	N	Y	Y	N	Y	N	0.63	1.184	6.101	---	1.274	2.396