## RADIANT.00.Data Collection Summary Rare and Atypical DIAbetes NeTwork Summary of Completed Study Forms Data Current as of May 2, 2024

RADIANT Stage 1 Questionnaire: Demographics, Current Diabetes Status and Treatment, Patient and Family History         1,278           Treating Physician Questionnaire         261           Detailed Family History         395           Stage 3 Visit Eligibility Checklist         338           Vitals         337           Anthropometrics         325           Photography         323           Coordinator Physical Exam         324           Investigator Physical Exam         320           Acanthosis         319           Hirsutism         167           Tranner Staging         10           Michigan Neuropathy Screening Instrument (MNSI) Self Assessment         323           Michigan Neuropathy Screening Instrument (MNSI) Physical Assessment         323           Physical Functioning         324           Mini-Mental State Examination (MMSE2)         302           PROMIS Global General Heath Item         293           PROMIS Global Mental Heath Item         293           PROMIS Cognitive Function Parent/Proxy Questionnaire         18           PROMIS Cognitive Function Pediatric Questionnaire         17           PROMIS Cognitive Function Ba         291	Form Name	# Completed Forms*
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Detailed Family History       395         Stage 3 Visit Eligibility Checklist       338         Vitals       337         Anthropometrics       325         Photography       323         Coordinator Physical Exam       324         Investigator Physical Exam       320         Acanthosis       319         Hirsutism       167         Tanner Staging       10         Michigan Neuropathy Screening Instrument (MNSI) Self Assessment       323         Michigan Neuropathy Screening Instrument (MNSI) Physical Assessment       323         Physical Functioning       324         Mini-Mental State Examination (MMSE2)       302         PROMIS Global General Health Item       293         PROMIS Global Mental Health Item       293         PROMIS Global Social Activities Roles Item       293         PROMIS Cognitive Function Parent/Proxy Questionnaire       18         PROMIS Cognitive Function Pediatric Questionnaire       17         PROMIS Cognitive Function 8a       291	RADIANT Stage 1 Questionnaire: Demographics, Current Diabetes Status and Treatment, Patient and Family History	1,278
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Anthropometrics 325 Photography 323 Coordinator Physical Exam 324 Investigator Physical Exam 320 Acanthosis 319 Hirsutism 167 Tanner Staging 10 Michigan Neuropathy Screening Instrument (MNSI) Self Assessment 323 Michigan Neuropathy Screening Instrument (MNSI) Physical Assessment 323 Physical Functioning 324 Mini-Mental State Examination (MMSE2) 302 PROMIS Global General Heath Item 293 PROMIS Global Mental Health Item 293 PROMIS Global Social Activities Roles Item 293 PROMIS Global Social Activities Roles Item 293 PROMIS Cognitive Function Parent/Proxy Questionnaire 18 PROMIS Cognitive Function Pediatric Questionnaire 17 PROMIS Cognitive Function Page 191 PROMIS Cognitive Function Page 191 PROMIS Cognitive Function Page 191	Stage 3 Visit Eligibility Checklist	338
Photography         323           Coordinator Physical Exam         324           Investigator Physical Exam         320           Acanthosis         319           Hirsutism         167           Tanner Staging         10           Michigan Neuropathy Screening Instrument (MNSI) Self Assessment         323           Michigan Neuropathy Screening Instrument (MNSI) Physical Assessment         323           Physical Functioning         324           Mini-Mental State Examination (MMSE2)         302           PROMIS Global General Heath Item         293           PROMIS Global Mental Health Item         293           PROMIS Global Social Activities Roles Item         293           PROMIS Gognitive Function Parent/Proxy Questionnaire         18           PROMIS Cognitive Function Pediatric Questionnaire         17           PROMIS Cognitive Function 8a         291	Vitals	337
Coordinator Physical Exam       324         Investigator Physical Exam       320         Acanthosis       319         Hirsutism       167         Tanner Staging       10         Michigan Neuropathy Screening Instrument (MNSI) Self Assessment       323         Michigan Neuropathy Screening Instrument (MNSI) Physical Assessment       323         Physical Functioning       324         Mini-Mental State Examination (MMSE2)       302         PROMIS Global General Health Item       293         PROMIS Global Mental Health Item       293         PROMIS Global Social Activities Roles Item       293         PROMIS Gognitive Function Parent/Proxy Questionnaire       18         PROMIS Cognitive Function Pediatric Questionnaire       17         PROMIS Cognitive Function 8a       291	Anthropometrics	325
Acanthosis 319 Hirsutism 167 Tanner Staging 10 Michigan Neuropathy Screening Instrument (MNSI) Self Assessment 323 Michigan Neuropathy Screening Instrument (MNSI) Physical Assessment 323 Michigan Neuropathy Screening Instrument (MNSI) Physical Assessment 323 Physical Functioning 324 Mini-Mental State Examination (MMSE2) 302 PROMIS Global General Heath Item 293 PROMIS Global Mental Health Item 292 PROMIS Physical Health Item 293 PROMIS Global Social Activities Roles Item 293 PROMIS Cognitive Function Parent/Proxy Questionnaire 18 PROMIS Cognitive Function Pediatric Questionnaire 17 PROMIS Cognitive Function 8a 291	Photography	323
Acanthosis 319  Hirsutism 167  Tanner Staging 10  Michigan Neuropathy Screening Instrument (MNSI) Self Assessment 323  Michigan Neuropathy Screening Instrument (MNSI) Physical Assessment 323  Physical Functioning 324  Mini-Mental State Examination (MMSE2) 302  PROMIS Global General Heath Item 293  PROMIS Global Mental Health Item 292  PROMIS Physical Health Item 293  PROMIS Physical Activities Roles Item 293  PROMIS Cognitive Function Parent/Proxy Questionnaire 18  PROMIS Cognitive Function Pediatric Questionnaire 17  PROMIS Cognitive Function 8 291	Coordinator Physical Exam	324
Hirsutism 167  Tanner Staging 10  Michigan Neuropathy Screening Instrument (MNSI) Self Assessment 323  Michigan Neuropathy Screening Instrument (MNSI) Physical Assessment 323  Physical Functioning 324  Mini-Mental State Examination (MMSE2) 302  PROMIS Global General Heath Item 293  PROMIS Global Mental Health Item 292  PROMIS Physical Health Item 293  PROMIS Global Social Activities Roles Item 293  PROMIS Cognitive Function Parent/Proxy Questionnaire 18  PROMIS Cognitive Function Pediatric Questionnaire 17  PROMIS Cognitive Function 8a 291	Investigator Physical Exam	320
Tanner Staging 10  Michigan Neuropathy Screening Instrument (MNSI) Self Assessment 323  Michigan Neuropathy Screening Instrument (MNSI) Physical Assessment 323  Physical Functioning 324  Mini-Mental State Examination (MMSE2) 302  PROMIS Global General Heath Item 293  PROMIS Global Mental Health Item 292  PROMIS Physical Health Item 293  PROMIS Physical Health Item 293  PROMIS Global Social Activities Roles Item 293  PROMIS Cognitive Function Parent/Proxy Questionnaire 17  PROMIS Cognitive Function Pediatric Questionnaire 17	Acanthosis	319
Michigan Neuropathy Screening Instrument (MNSI) Self Assessment  323  Michigan Neuropathy Screening Instrument (MNSI) Physical Assessment  323  Physical Functioning  324  Mini-Mental State Examination (MMSE2)  PROMIS Global General Heath Item  293  PROMIS Global Mental Health Item  292  PROMIS Physical Health Item  293  PROMIS Physical Health Item  293  PROMIS Global Social Activities Roles Item  293  PROMIS Cognitive Function Parent/Proxy Questionnaire  18  PROMIS Cognitive Function Pediatric Questionnaire  17  PROMIS Cognitive Function 8a	Hirsutism	167
Michigan Neuropathy Screening Instrument (MNSI) Physical Assessment  323  Physical Functioning  324  Mini-Mental State Examination (MMSE2)  PROMIS Global General Heath Item  293  PROMIS Global Mental Health Item  292  PROMIS Physical Health Item  293  PROMIS Physical Health Item  293  PROMIS Global Social Activities Roles Item  293  PROMIS Cognitive Function Parent/Proxy Questionnaire  18  PROMIS Cognitive Function Pediatric Questionnaire  17  PROMIS Cognitive Function 8a	Tanner Staging	10
Physical Functioning  Mini-Mental State Examination (MMSE2)  PROMIS Global General Heath Item  293  PROMIS Global Mental Health Item  292  PROMIS Physical Health Item  293  PROMIS Global Social Activities Roles Item  293  PROMIS Cognitive Function Parent/Proxy Questionnaire  18  PROMIS Cognitive Function Pediatric Questionnaire  17  PROMIS Cognitive Function 8a	Michigan Neuropathy Screening Instrument (MNSI) Self Assessment	323
Mini-Mental State Examination (MMSE2)  PROMIS Global General Heath Item  293  PROMIS Global Mental Health Item  294  PROMIS Physical Health Item  295  PROMIS Global Social Activities Roles Item  296  PROMIS Cognitive Function Parent/Proxy Questionnaire  186  PROMIS Cognitive Function Pediatric Questionnaire  177  PROMIS Cognitive Function 8a	Michigan Neuropathy Screening Instrument (MNSI) Physical Assessment	323
PROMIS Global General Health Item  PROMIS Global Mental Health Item  PROMIS Physical Health Item  PROMIS Global Social Activities Roles Item  PROMIS Global Social Activities Roles Item  PROMIS Cognitive Function Parent/Proxy Questionnaire  PROMIS Cognitive Function Pediatric Questionnaire  17  PROMIS Cognitive Function 8a	Physical Functioning	324
PROMIS Global Mental Health Item  292  PROMIS Physical Health Item  293  PROMIS Global Social Activities Roles Item  293  PROMIS Cognitive Function Parent/Proxy Questionnaire  18  PROMIS Cognitive Function Pediatric Questionnaire  17  PROMIS Cognitive Function 8a	Mini-Mental State Examination (MMSE2)	302
PROMIS Physical Health Item  293  PROMIS Global Social Activities Roles Item  293  PROMIS Cognitive Function Parent/Proxy Questionnaire  18  PROMIS Cognitive Function Pediatric Questionnaire  17  PROMIS Cognitive Function 8a	PROMIS Global General Heath Item	293
PROMIS Global Social Activities Roles Item  293  PROMIS Cognitive Function Parent/Proxy Questionnaire  18  PROMIS Cognitive Function Pediatric Questionnaire  17  PROMIS Cognitive Function 8a  291	PROMIS Global Mental Health Item	292
PROMIS Cognitive Function Parent/Proxy Questionnaire  18 PROMIS Cognitive Function Pediatric Questionnaire  17 PROMIS Cognitive Function 8a  291	PROMIS Physical Health Item	293
PROMIS Cognitive Function Pediatric Questionnaire 17 PROMIS Cognitive Function 8a 291	PROMIS Global Social Activities Roles Item	293
PROMIS Cognitive Function 8a 291	PROMIS Cognitive Function Parent/Proxy Questionnaire	18
	PROMIS Cognitive Function Pediatric Questionnaire	17
PROMIS Global Health Parent/Proxy Questionnaire - Fatigue 18	PROMIS Cognitive Function 8a	291
	PROMIS Global Health Parent/Proxy Questionnaire - Fatigue	18

## RADIANT.00.Data Collection Summary Rare and Atypical DIAbetes NeTwork Summary of Completed Study Forms Data Current as of May 2, 2024

Form Name	# Completed Forms*
PROMIS Global Health Parent/Proxy Questionnaire - Pain	18
PROMIS Global Health Parent/Proxy Questionnaire	18
PROMIS Global Health Pediatric Questionnaire - Fatigue	17
PROMIS Global Health Pediatric Questionnaire - Pain	17
PROMIS Global Health Pediatric Questionnaire	17
Education Questionnaire	314
Environmental Exposure Questionnaire	308
Medication Inventory	322
Oral Glucose Tolerance Test (OGTT)	327
Physical Activity Questionnaire (PAQ)	324
Stage 3 Standard Visit Specimen Collection	332
ASA24 Food Recall Questionnaire	174
	11,062

## RADIANT.00.Data Collection Summary Rare and Atypical DIAbetes NeTwork Summary of Samples Provided by RADIANT Participants Data Current as of May 2, 2024

Participants Providing Samples for:	Sample Type Test	# of Participants Providing Samples	# of Samples Received
Stage 1 Autoantibody Testing	Serum for BAA	966	6,566
Stage 2 Genetic Testing	DNA Extraction (WGS)	427	2,882
	RNA Extraction (RNA-Seq)	426	1,230
Stage 2 Unaffected Family Member Testing	Fasting Glucose	36	37
Stage 2 Family Member Genetic Testing	DNA Extraction (Sanger)	52	256
	DNA Extraction (WGS Trio)	3	15
Stage 3 Standard Visit Testing	Serum for Storage, CMP, Lipid Profile	319	3,887
	Plasma for Storage, Metabolomics	325	5,931
	Plasma for OGTT glucose at -10, 0, 15, 30, 60, 90, 120 minutes	324	2,150
	Plasma for OGTT c-peptide and insulin at -10, 0, 15, 30, 60, 90, 120 minutes	324	9,637
	Urine (fasting)	324	3,228
	HbA1c	362	365
	PBMC	164	728
			36,912

# RADIANT.00.Data Collection Summary Rare and Atypical DIAbetes NeTwork Summary of Stage 3 Samples by RADIANT Participant Clinical Category Data Current as of May 2, 2024

Clinical Category*	Cases	Serum Samples for Storage, CMP, Lipid Profile	Plasma Samples for Storage, Metabolomics	Plasma Samples for OGTT Glucose**	Plasma Samples for OGTT C-peptide & Insulin**	Urine Samples	HbA1c Samples	PBMC Samples	Total Samples
All Cases Reviewed by the Discovery Team	210	2,440	3,805	1,396	6,144	2,078	210	659	16,732
Non-obese insulin insufficient DM	94	1,084	1,701	638	2,806	928	94	276	7,527
Possible monogenic or oligogenic	65	739	1,155	438	1,865	628	66	237	5,128
Antibody negative, insulin deficient diabetes	51	604	929	332	1,409	510	52	173	4,009
Syndromic	30	340	552	186	855	290	31	109	2,363
Other	25	283	460	165	718	250	24	96	1,996
Lipodystrophic	22	231	377	153	648	220	23	81	1,733
A-B+ ketosis prone diabetes	17	222	324	119	586	170	17	79	1,517
Non-progressive	15	163	267	95	432	150	15	47	1,169
Very low insulin requirements	13	154	245	85	371	130	13	49	1,047
Severe insulin resistance	12	135	215	83	374	120	12	45	984
Lean GDM	9	93	170	60	234	81	9	22	669
Mitochondrial	9	114	172	52	248	90	9	33	718
A-B- ketosis prone diabetes	8	89	136	49	211	80	8	27	600
Molecular Mechanisms of Beta Cell Dysfunction	8	88	139	44	186	80	8	24	569
Lean PCOS	5	61	98	35	160	50	5	16	425
Diabetes associated with congenital or inherited pancreatic disease	4	50	73	22	106	30	4	15	300
IRS2 Haploinsufficiency variant	4	36	77	28	126	40	4	18	329
INSR variant	3	40	57	21	105	30	3	7	263
INS variant	3	35	71	28	108	30	3	5	280
IGF1R variant	2	23	36	14	56	20	2	15	166
SLIT2-ROBO1 variant	2	14	31	14	45	20	2	5	131

<sup>\*</sup>Clinical categories are assigned by the RADIANT Discovery Team after the Stage 3 visit. A participant can be assigned to more than one Clinical Category by the Discovery Team.

<sup>\*\*</sup>Total for all time points. Samples are obtained to measure glucose/c-peptide/insulin at -10, 0, 15, 30, 60, 90, 120 minutes.

# RADIANT.00.Data Collection Summary Rare and Atypical DIAbetes NeTwork Summary of Stage 3 Samples by RADIANT Participant Clinical Category Data Current as of May 2, 2024

Clinical Category*	Cases	Serum Samples for Storage, CMP, Lipid Profile	Plasma Samples for Storage, Metabolomics	Plasma Samples for OGTT Glucose**	Plasma Samples for OGTT C-peptide & Insulin**	Urine Samples	HbA1c Samples	PBMC Samples	Total Samples
mTor Pathway	2	30	40	14	70	20	2	6	182
CERS2 variant	1	14	19	7	35	10	1	4	90
EIF2S1 variant	1	10	20	7	35	10	1	13	96
GLUT4 variant	1	9	19	7	29	10	1	0	75
IDH2 variant	1	10	18	6	20	10	1	1	66
LMNTD2 variant	1	12	20	7	33	10	1	1	84
NFKB1 variant	1	15	20	7	35	10	1	6	94
PAX6 variant	1	15	20	7	35	10	1	5	93
PTPMT1 variant	1	11	16	7	31	10	1	2	78
Pre-pubertal T2D	1	4	17	6	21	10	1	3	62
SMAD5 variant	1	12	20	7	35	10	1	5	90
Fulminant	0	0	0	0	0	0	0	0	0

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<sup>\*\*</sup>Total for all time points. Samples are obtained to measure glucose/c-peptide/insulin at -10, 0, 15, 30, 60, 90, 120 minutes.