

Supplementary Materials

Molecular Biology of the Cell

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Supplemental Figure Legends

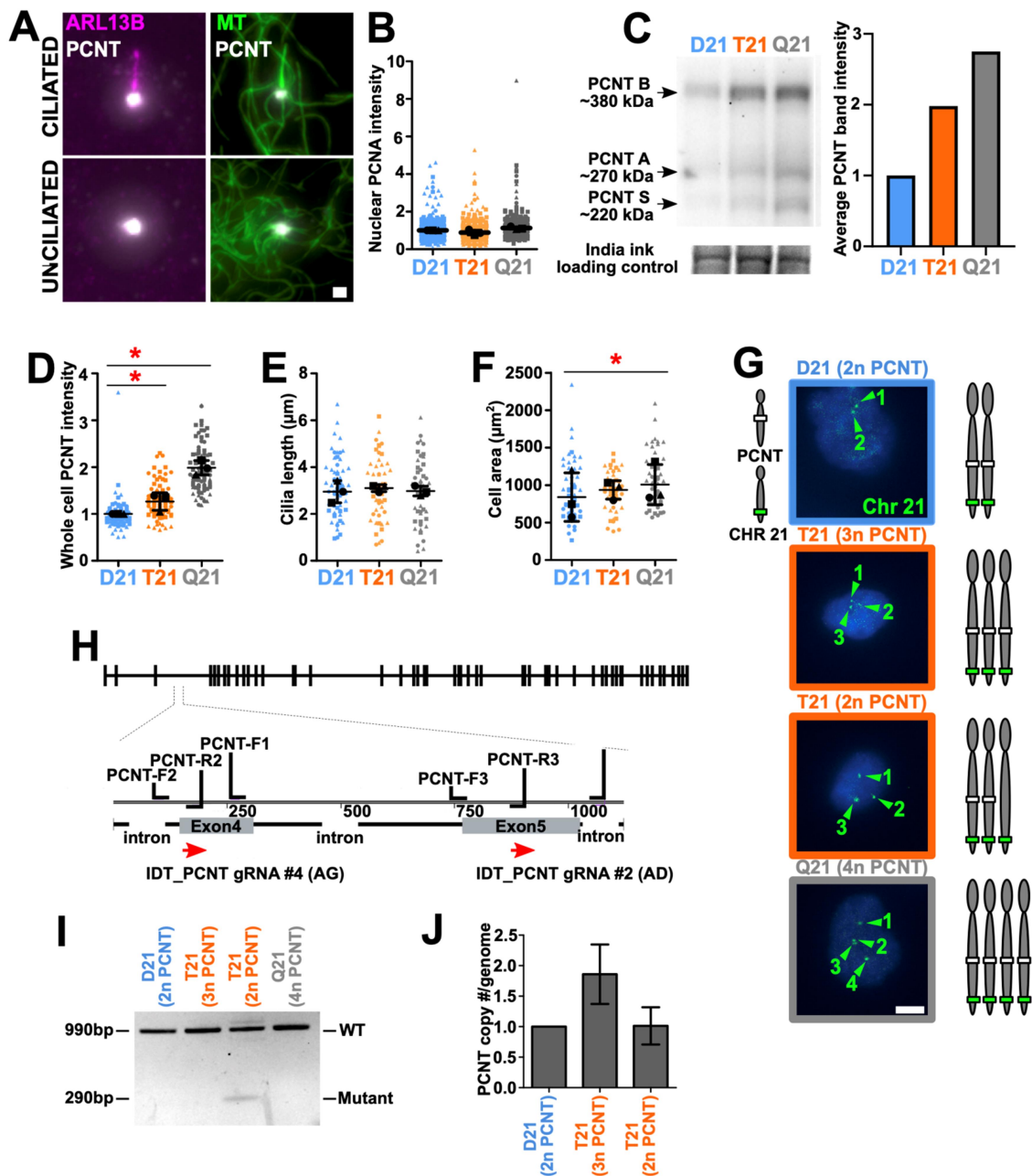


Figure S1: (A) Left, representative ciliated and unciliated D21 cell stained for centrosomes (PCNT; grayscale) and cilia (ARL13B; magenta). Right, representative ciliated and unciliated cell stained for centrosomes (PCNT; grayscale) and cilia (DM1A; MT; green). Scale bar, 1 μm . (B) Nuclear PCNA intensity does not change among D21, T21, and Q21 RPE-1 cells. Mean \pm SD. * $p < 0.05$ (Table 1). (C) PCNT isoform summed average band intensities for D21, T21, and Q21 RPE-1 cells. Band intensities normalized to india ink loading control band intensities. (D) Whole cell PCNT is increased in T21 and Q21 RPE-1 cells. Intensities normalized to D21 averages. Mean \pm SD. * $p < 0.05$ (Table 1). (E) Cilia

length is unchanged between D21, T21, and Q21 RPE-1 cells. Mean±SD. (Table 1). **(F)** Cell area increases in Q21 RPE-1 cells. Mean±SD. *p < 0.05 (Table 1). **(G)** CRISPR-Cas9 knockout of one allele of PCNT in T21 RPE-1 cells (T21 (2n PCNT)) does not alter chromosome 21 copy number (HSA21 subtelomere probe; green). Scale bar, 5 μm. **(H)** Cas9 cleavage sites are located in PCNT Exon 4 and Exon 5. PCR using PCNT-F2/R1 oligos was used to verify deletion of the gene segment spanning the two Cas9 cleavage sites. **(I)** PCR verification of genetic ablation of a single PCNT allele in T21 cells using PCNT-F2/R1 oligos. WT PCNT expected band size: 990 bp. Edited PCNT expected band size: 290 bp..**(J)** QIAGEN dPCR verification of PCNT copy number / genome.

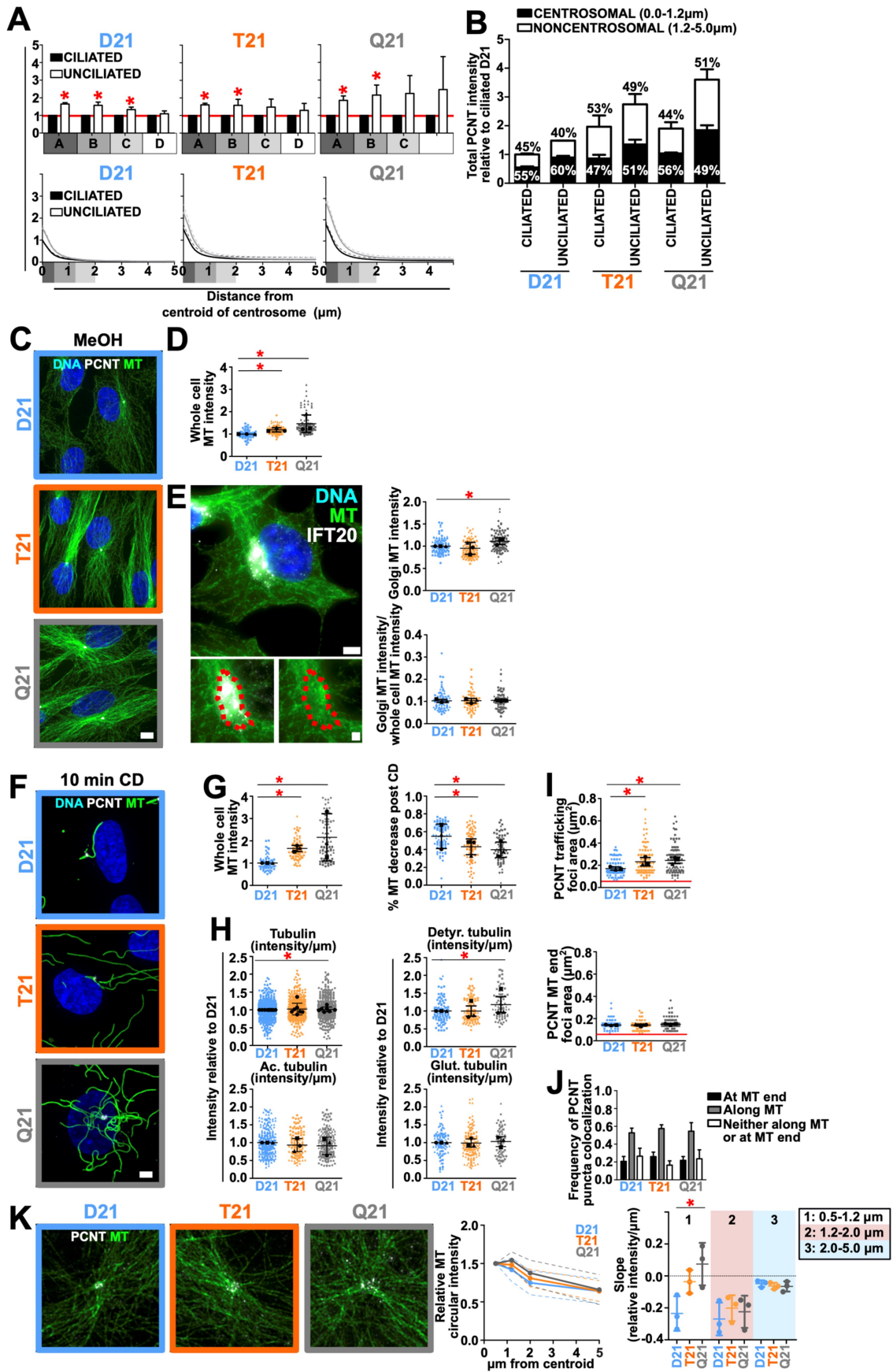


Figure S2: (A) Top, D21, T21, and Q21 regional binned PCNT fluorescence intensities. Intensity values normalized to ciliated cell average within each ploidy level (indicated with red line). Statistical comparisons made to ciliated averages. Bottom, D21, T21, and Q21 radial PCNT fluorescence intensities in ciliated and unciliated cells. Intensity normalized to ciliated D21 centrosome intensity. Solid lines denote mean and dashed lines denote SD. Mean±SD. *p < 0.05 (Table 1). **(B)** PCNT fluorescence in a 5.0 µm radius around the centrosome in ciliated and unciliated D21, T21, and Q21 cells. Relative fractional intensity contributions of centrosomal and non centrosomal PCNT to the total PCNT intensity. Intensity was defined as centrosomal if the fluorescence intensity fell within 0.0 - 1.2 µm of the centriole of the centrosome. Intensity was defined as noncentrosomal if fluorescence intensity fell within 1.2 – 5.0 µm of the centrosome. Mean±SD. **(C)** D21, T21 and Q21 RPE-1 cells stained for MTs (DM1A; green), PCNT (PCNT; grayscale), and DNA (Hoescht 33258; blue). Cells in these images were methanol fixed. Scale bar, 4 µm. **(D)** D21, T21, and Q21 whole cell methanol fixed MT fluorescence intensities. Intensity values normalized to D21 average. Statistical comparisons made to D21 averages. Mean±SD. *p < 0.05 (Table 1). **(E)** RPE-1 cell labeled for golgi apparatus (GA) (IFT20; grayscale), MTs (DM1A; green), and DNA (Hoescht 33258; blue). For GA MT quantification, GA boundaries were outlined (dashed red line) and MT intensities within outline were calculated. Top, GA MT intensity is significantly increased in Q21 RPE-1 cells. Bottom, GA MT contributions to whole cell MT intensities are unchanged in D21, T21, and Q21 cells. Intensity values normalized to D21 average. Statistical comparisons are made to D21 averages. Mean±SD. *p < 0.05 (Table 1). **(F)** 10-minute CD D21, T21 and Q21 RPE-1 cells stained for MTs (DM1A; green), PCNT (PCNT; grayscale), and DNA (Hoescht 33258; blue). Samples were prepared with pre-permeabilization. **(G)** Left, D21, T21, and Q21 10-minute CD whole cell MT fluorescence intensities. Right, whole cell MT intensity reduction post 10-minute CD is reduced in T21 and Q21 RPE-1 cells. Statistical comparisons are made to D21 averages. Samples were prepared with pre-permeabilization. Mean±SD. *p < 0.05 (Table 1). **(H)** D21, T21, Q21 intensity / µm values for tubulin and tubulin post-translational modifications. Mean±SD. *p < 0.05 (Table 1). Tubulin, acetylated tubulin, glutamylated tubulin, and detyrosinated tubulin intensities were quantified. Intensity values are normalized to D21 average. Statistical comparisons are made to D21 averages. Samples were prepared with pre-permeabilization. Mean±SD. *p < 0.05 (Table 1). **(I)** Top, PCNT puncta size along MTs is larger than 0.05 µm² (indicated with red line) and increases with HSA21 ploidy. Bottom, area of PCNT foci at MT minus ends are larger than 0.05 µm² (indicated with red line). Mean±SD. *p < 0.05 (Table 1). **(J)** 78% of PCNT puncta, on average, localize to pre-permeabilized MTs in D21, T21, and Q21 RPE-1 cells. **(K)** Localization of PCNT (grayscale) and MTs (green) using SIM microscopy. Left, radial analysis quantification was performed to map the distribution of relative MT fluorescence intensity at 0.5, 1.2, 2.0, and 5.0 mm

from the centroid of the PCNT marked centrosome. Dashed lines denote standard deviation. Right, slopes of relative MT circular intensities denoted in S2K (left). Mean \pm SD. * $p < 0.05$ (Table 1).

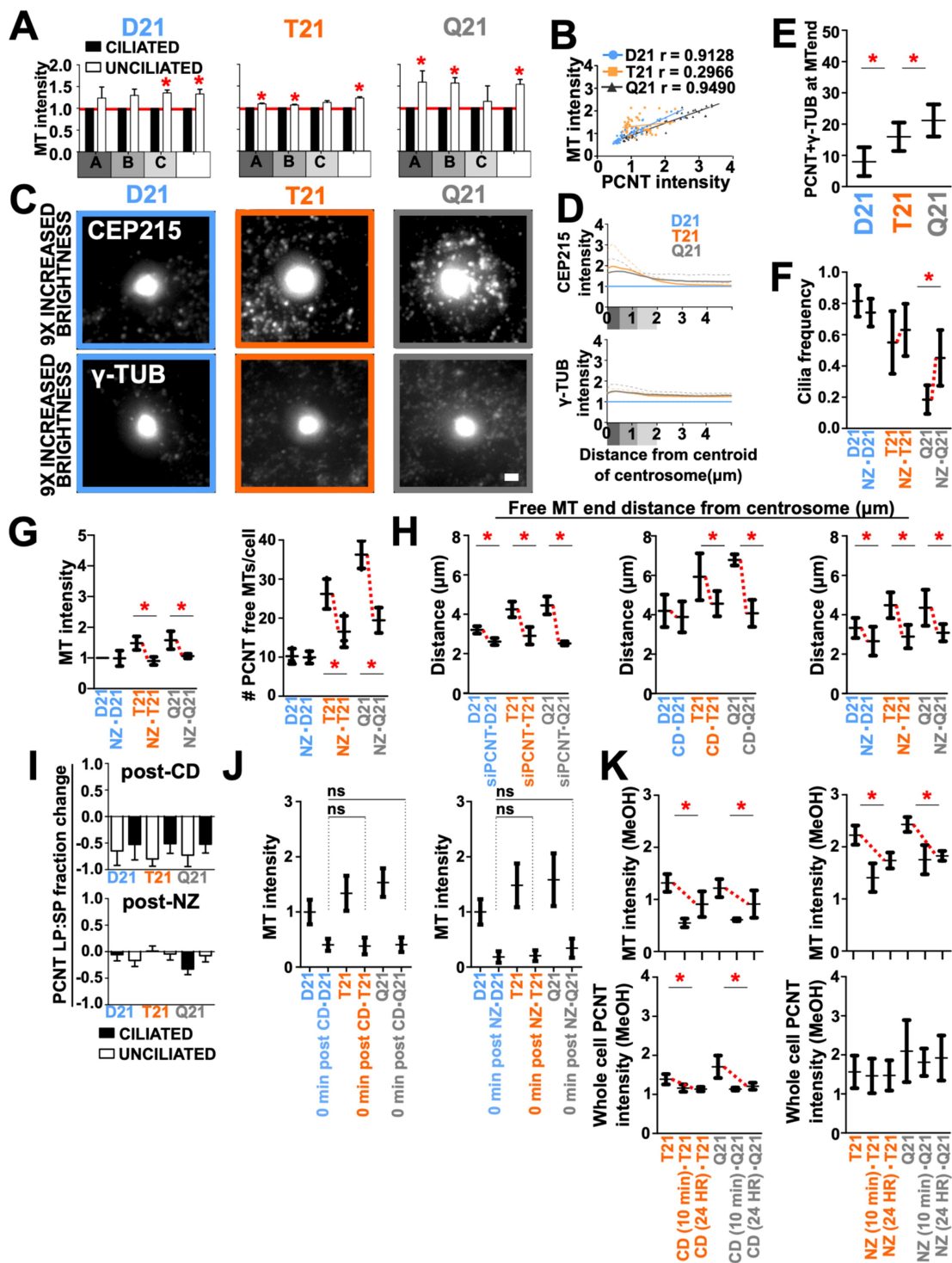


Figure S3: (A) D21, T21, and Q21 regional binned MT fluorescence intensities. Intensity values normalized to ciliated cell average within each ploidy level (indicated with red line). Statistical

comparisons made to ciliated averages. Mean±SD. *p < 0.05. **(B)** MT and PCNT intensity correlation in D21, T21, and Q21 RPE-1 cells. D21 r = 0.9128, T21 r = 0.2966, Q21 r = 0.9490 (Table 1). **(C)** PCNT interacting partners, CEP215 and γ -tubulin, increase with HSA21 ploidy. Top panels, D21, T21, and Q21 cells stained for CEP215 (CEP215; grayscale). Bottom panels, D21, T21, and Q21 cells stained for γ -tubulin (GTU88; grayscale). Image brightness was increased 9-fold to highlight pericentrosomal and cytoplasmic regions. This saturates the centrosome signal. Scale bar, 1 μ m. **(D)** Top, T21 and Q21 radial CEP215 fluorescence intensities normalized to D21 intensity (indicated with blue line). Bottom, T21 and Q21 radial γ -tubulin fluorescence intensities normalized to D21 intensity (indicated with blue line). Solid lines denote mean and dashed lines denote SD. **(E)** PCNT and γ -tubulin colocalization at MT ends increases with HSA21 ploidy. Mean±SD. *p < 0.05 (Table 1). **(F)** Nocodazole (NZ) treatment increases cilia frequencies in Q21 RPE-1 cells. Mean±SD. *p < 0.05 (Table 1). **(G)** Left, NZ treatment reduces MT intensities in T21 and Q21 RPE-1 cells. Intensity values are normalized to D21 average. Data points represent 5.0 μ m binned radial MT fluorescence intensities. Right, NZ treatment reduces PCNT-associated MTs in T21 and Q21 RPE-1 cells. Mean±SD. *p < 0.05 (Table 1). **(H)** Left, reducing PCNT via siRNA reduces distance of PCNT-associated free MTs from centrosome in D21, T21, and Q21 RPE-1 cells. Middle, CD treatment reduces distance of PCNT-associated free MTs from centrosome in D21, T21, and Q21 RPE-1 cells. Right, NZ treatment reduces distance of PCNT-associated free MTs from centrosome in D21, T21, and Q21 RPE-1 cells. Mean±SD. *p < 0.05 (Table 1). **(I)** CD treatment reduces mean PCNT LP:SP ratios in T21 and Q21 RPE-1 cells while NZ treatment does not. Mean±SD. **(J)** Left, 60-80% of whole cell MTs in D21, T21, and Q21 RPE-1 cells are depolymerized 0 minutes post 20-minute CD treatment. Right, 75-85% of whole cell MTs in D21, T21, and Q21 RPE-1 cells are depolymerized 0 minutes post NZ treatment. Mean±SD. *p < 0.05 (Table 1). **(K)** Top graphs, methanol fixed whole cell MT intensities 10 minutes after CD or NZ treatment. Bottom graphs, whole cell PCNT is reduced 10 minutes following CD and remains reduced 24 hours post CD. Whole cell PCNT is unchanged post NZ treatment. Intensity values normalized to D21 averages. Statistical comparisons made to D21 averages. Mean±SD. *p < 0.05 (Table 1).

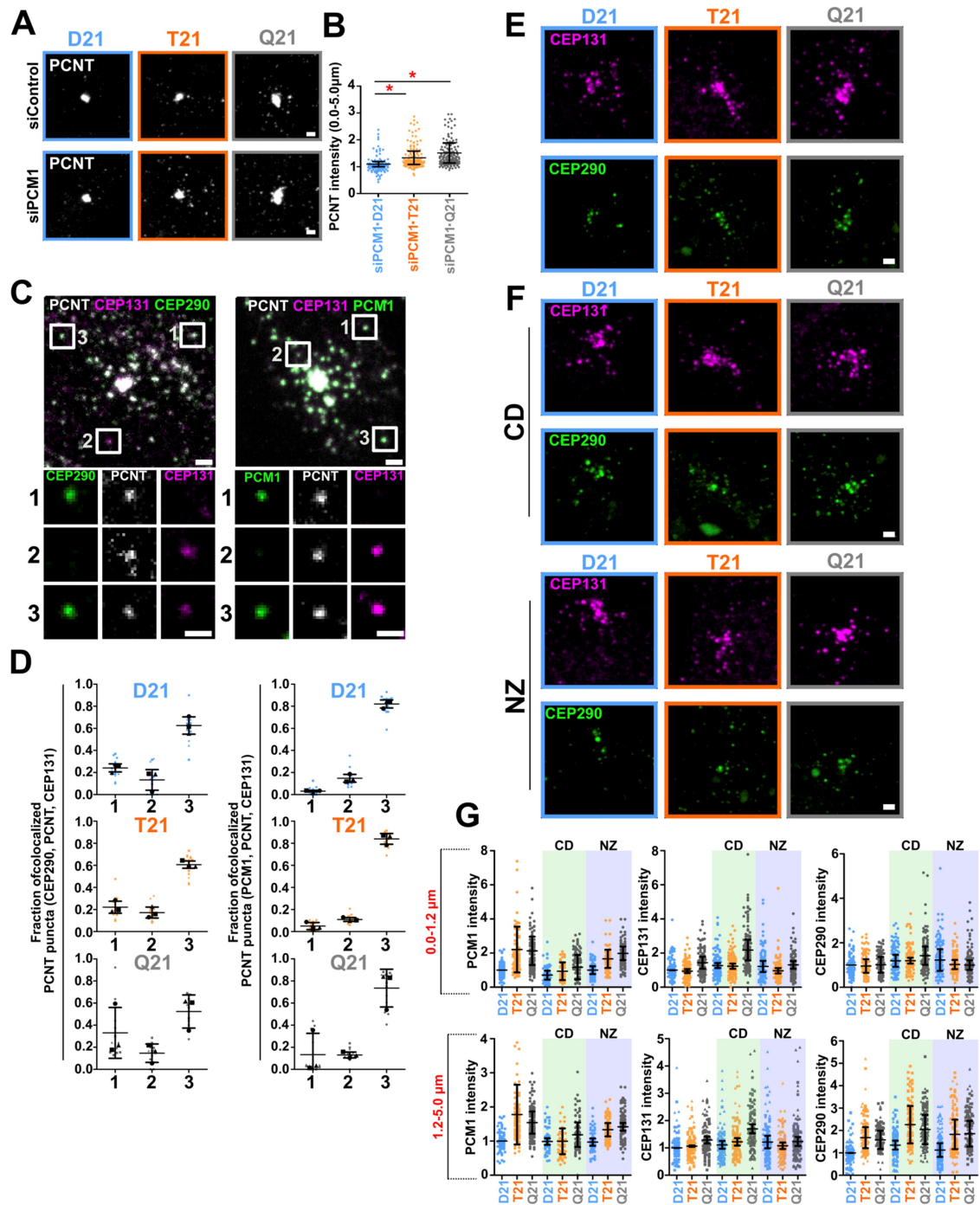


Figure S4: (A) siControl and siPCM1 treated D21, T21, and Q21 RPE-1 cells stained for PCNT (PCNT; grayscale). Scale bar, 1.5 μ m. (B) siPCM1 treatment does not affect PCNT elevation in T21 and Q21 RPE-1 cells. PCNT intensity normalized to siControl D21 RPE-1 cells. Mean \pm SD. * p < 0.05 (Table 1). (C) Left, RPE-1 cell stained for PCNT (PCNT; grayscale), CEP131 (CEP131; magenta), and CEP290 (CEP290; green). Right, RPE-1 cell stained for PCNT (PCNT; grayscale), CEP131 (CEP131; magenta), and PCM1

(PCM1; green). Insets show examples of colocalization quantified in (D). Scale bars, 1.5 μm and 1 μm for insets. **(D)** Colocalization of PCNT puncta with CEP290, PCM1, and CEP131 in D21, T21, and Q21 RPE-1 cells as defined in (C). Mean \pm SD. **(E)** D21, T21, and Q21 RPE-1 cells stained for CEP131 (CEP131; magenta) and CEP290 (CEP290; green). Scale bars, 1.5 μm . **(F)** Top, D21, T21, and Q21 RPE-1 cells stained for CEP131 (CEP131; magenta) and CEP290 (CEP290; green) 24 hours post-CD treatment. Bottom, D21, T21, and Q21 RPE-1 cells stained for CEP131 (CEP131; magenta) and CEP290 (CEP290; green) 24 hours post-NZ treatment. Scale bar, 1.5 μm . **(G)** Top, binned (0.0-1.2 μm radius around the centrosome) PCM1, CEP131, and CEP290 fluorescence intensity in control, cold-treated, and nocodazole treated D21, T21, and Q21 RPE-1 cells. Intensity normalized to D21 control intensity. Bottom, binned (1.2-5.0 μm radius around the centrosome) PCM1, CEP131, and CEP290 fluorescence intensity in control, cold-treated, and nocodazole treated D21, T21, and Q21 RPE-1 cells. Intensity normalized to D21 control intensity. Mean \pm SD. * $p < 0.05$ (Table 1).

NORMALITY TESTS AND SAMPLE SIZE**Figure 1: B**

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		200	4 NA	NA
T21		200	4 NA	NA
Q21		200	4 NA	NA

Figure 1: D

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21 (ciliated)		161	3 D'Agostino & Pearson omnibus normality test	No
D21 (unciliated)		83	3 D'Agostino & Pearson omnibus normality test	No
D21 (combined)		244	3 D'Agostino & Pearson omnibus normality test	No
T21 (ciliated)		81	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (unciliated)		165	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (combined)		246	3 D'Agostino & Pearson omnibus normality test	Yes
Q21 (ciliated)		72	3 D'Agostino & Pearson omnibus normality test	Yes
Q21 (unciliated)		257	3 D'Agostino & Pearson omnibus normality test	Yes
Q21 (combined)		329	3 D'Agostino & Pearson omnibus normality test	No

Figure 1: E (LEFT GRAPH)

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		90	3 D'Agostino & Pearson omnibus normality test	No
D21 (siPCNT)		90	3 D'Agostino & Pearson omnibus normality test	No
T21		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (siPCNT)		90	3 D'Agostino & Pearson omnibus normality test	No
Q21		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (siPCNT)		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (3n PCNT)		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (2n PCNT)		90	3 D'Agostino & Pearson omnibus normality test	No

Figure 1: E (RIGHT GRAPH)

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		90	3 NA	NA
D21 (siPCNT)		90	3 NA	NA
T21		90	3 NA	NA
T21 (siPCNT)		90	3 NA	NA
Q21		90	3 NA	NA
Q21 (siPCNT)		90	3 NA	NA
T21 (3n PCNT)		90	3 NA	NA
T21 (2n PCNT)		90	3 NA	NA

Figure S1: B

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		488	3 D'Agostino & Pearson omnibus normality test	No
T21		562	3 D'Agostino & Pearson omnibus normality test	No
Q21		545	3 D'Agostino & Pearson omnibus normality test	No

Figure S1: D

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		92	3 D'Agostino & Pearson omnibus normality test	No
T21		96	3 D'Agostino & Pearson omnibus normality test	No
Q21		96	3 D'Agostino & Pearson omnibus normality test	No

Figure S1: C

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		64	3 D'Agostino & Pearson omnibus normality test	Yes
T21		52	3 D'Agostino & Pearson omnibus normality test	Yes
Q21		47	3 D'Agostino & Pearson omnibus normality test	Yes

Figure S1: D

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		50	3 D'Agostino & Pearson omnibus normality test	No
T21		50	3 D'Agostino & Pearson omnibus normality test	Yes
Q21		50	3 D'Agostino & Pearson omnibus normality test	Yes

Figure 2: C

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21 (ciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
D21 (unciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (ciliated)		90	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (unciliated)		90	3 D'Agostino & Pearson omnibus normality test	Yes
Q21 (ciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (unciliated)		90	3 D'Agostino & Pearson omnibus normality test	Yes

Figure 2: D

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21 (ciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
D21 (unciliated)		90	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (ciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (unciliated)		90	3 D'Agostino & Pearson omnibus normality test	No

Q21 (ciliated)	90		3 D'Agostino & Pearson omnibus normality test	Yes
Q21 (unciliated)	90		3 D'Agostino & Pearson omnibus normality test	No
Figure 2: F				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
T21 (2n PCNT) ciliated		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (2n PCNT) unciliated		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (siPCNT) ciliated		90	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (siPCNT) unciliated		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (siPCNT) ciliated		90	3 D'Agostino & Pearson omnibus normality test	Yes
Q21 (siPCNT) unciliated		90	3 D'Agostino & Pearson omnibus normality test	No
Figure 2: G (LEFT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		38	3 D'Agostino & Pearson omnibus normality test	Yes
T21		44	3 D'Agostino & Pearson omnibus normality test	Yes
Q21		54	3 D'Agostino & Pearson omnibus normality test	Yes
Figure 2: G (RIGHT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		134	3 D'Agostino & Pearson omnibus normality test	Yes
T21		117	3 D'Agostino & Pearson omnibus normality test	No
Q21		132	3 D'Agostino & Pearson omnibus normality test	No
Figure S2: A (TOP)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21 (ciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
D21 (unciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (ciliated)		90	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (unciliated)		90	3 D'Agostino & Pearson omnibus normality test	Yes
Q21 (ciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (unciliated)		90	3 D'Agostino & Pearson omnibus normality test	Yes
Figure S2: B				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21 (ciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
D21 (unciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (ciliated)		90	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (unciliated)		90	3 D'Agostino & Pearson omnibus normality test	Yes
Q21 (ciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (unciliated)		90	3 D'Agostino & Pearson omnibus normality test	Yes
Figure S2: D				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		95	3 D'Agostino & Pearson omnibus normality test	Yes
T21		106	3 D'Agostino & Pearson omnibus normality test	No
Q21		100	3 D'Agostino & Pearson omnibus normality test	No
Figure S2: E (TOP)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		126	3 D'Agostino & Pearson omnibus normality test	No
T21		111	3 D'Agostino & Pearson omnibus normality test	No
Q21		122	3 D'Agostino & Pearson omnibus normality test	No
Figure S2: E (BOTTOM)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		90	3 D'Agostino & Pearson omnibus normality test	No
T21		81	3 D'Agostino & Pearson omnibus normality test	No
Q21		82	3 D'Agostino & Pearson omnibus normality test	No
Figure S2: G (LEFT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		93	3 D'Agostino & Pearson omnibus normality test	No
T21		96	3 D'Agostino & Pearson omnibus normality test	No
Q21		97	3 D'Agostino & Pearson omnibus normality test	No
Figure S2: G (RIGHT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		93	3 D'Agostino & Pearson omnibus normality test	No
T21		96	3 D'Agostino & Pearson omnibus normality test	No
Q21		97	3 D'Agostino & Pearson omnibus normality test	No
Figure S2: H (TUBULIN)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		722	7 D'Agostino & Pearson omnibus normality test	No
T21		542	7 D'Agostino & Pearson omnibus normality test	No
Q21		602	7 D'Agostino & Pearson omnibus normality test	No
Figure S2: H (AC. TUBULIN)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?

D21		270	3 D'Agostino & Pearson omnibus normality test	No
T21		133	3 D'Agostino & Pearson omnibus normality test	No
Q21		221	3 D'Agostino & Pearson omnibus normality test	No
Figure S2: H (GLUT. TUBULIN)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		113	3 D'Agostino & Pearson omnibus normality test	Yes
T21		160	3 D'Agostino & Pearson omnibus normality test	No
Q21		83	3 D'Agostino & Pearson omnibus normality test	No
Figure S2: H (DETYR. TUBULIN)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		135	3 D'Agostino & Pearson omnibus normality test	No
T21		129	3 D'Agostino & Pearson omnibus normality test	No
Q21		88	3 D'Agostino & Pearson omnibus normality test	No
Figure S2: I (TOP)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		113	3 D'Agostino & Pearson omnibus normality test	No
T21		148	3 D'Agostino & Pearson omnibus normality test	No
Q21		147	3 D'Agostino & Pearson omnibus normality test	No
Figure S2: I (BOTTOM)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		151	3 D'Agostino & Pearson omnibus normality test	No
T21		150	3 D'Agostino & Pearson omnibus normality test	No
Q21		150	3 D'Agostino & Pearson omnibus normality test	No
Figure S2: J				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21 (MT END)		15	3 NA	NA
T21 (MT END)		15	3 NA	NA
Q21 (MT END)		15	3 NA	NA
D21 (ALONG MT)		15	3 NA	NA
T21 (ALONG MT)		15	3 NA	NA
Q21 (ALONG MT)		15	3 NA	NA
D21 (NEITHER)		15	3 NA	NA
T21 (NEITHER)		15	3 NA	NA
Q21 (NEITHER)		15	3 NA	NA
Figure S2:K				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		16	3 D'Agostino & Pearson omnibus normality test	No
T21		16	3 D'Agostino & Pearson omnibus normality test	No
Q21		16	3 D'Agostino & Pearson omnibus normality test	No
Figure 3: B				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21 (ciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
D21 (unciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (ciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (unciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (ciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (unciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
Figure 3:D (LEFT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		90	3 D'Agostino & Pearson omnibus normality test	No
T21		90	3 D'Agostino & Pearson omnibus normality test	No
Q21		90	3 D'Agostino & Pearson omnibus normality test	No
Figure 3:D (RIGHT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		90	3 D'Agostino & Pearson omnibus normality test	Yes
T21		90	3 D'Agostino & Pearson omnibus normality test	Yes
Q21		90	3 D'Agostino & Pearson omnibus normality test	Yes
Figure 3:F (LEFT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		90	3 D'Agostino & Pearson omnibus normality test	No
D21 (siPCNT)		90	3 D'Agostino & Pearson omnibus normality test	No
T21		90	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (siPCNT)		90	3 D'Agostino & Pearson omnibus normality test	Yes
Q21		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (siPCNT)		90	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (3n PCNT)		90	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (2n PCNT)		90	3 D'Agostino & Pearson omnibus normality test	No
Figure 3:F (RIGHT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?

D21	90	3 D'Agostino & Pearson omnibus normality test	No
D21 (siPCNT)	90	3 D'Agostino & Pearson omnibus normality test	Yes
T21	90	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (siPCNT)	90	3 D'Agostino & Pearson omnibus normality test	Yes
Q21	90	3 D'Agostino & Pearson omnibus normality test	Yes
Q21 (siPCNT)	90	3 D'Agostino & Pearson omnibus normality test	Yes

Figure 3: I

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21 (CD) ciliated		90	3 D'Agostino & Pearson omnibus normality test	No
D21 (CD) unciliated		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (CD) ciliated		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (CD) unciliated		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (CD) ciliated		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (CD) unciliated		90	3 D'Agostino & Pearson omnibus normality test	No

Figure 3: J

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		211	3 NA	NA
D21 (CD)		166	3 NA	NA
T21		187	3 NA	NA
T21 (CD)		161	3 NA	NA
Q21		165	3 NA	NA
Q21 (CD)		191	3 NA	NA

Figure 3: K (LEFT)

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		90	3 D'Agostino & Pearson omnibus normality test	No
D21 (CD)		90	3 D'Agostino & Pearson omnibus normality test	Yes
T21		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (CD)		90	3 D'Agostino & Pearson omnibus normality test	Yes
Q21		90	3 D'Agostino & Pearson omnibus normality test	Yes
Q21 (CD)		90	3 D'Agostino & Pearson omnibus normality test	No

Figure 3: K (RIGHT)

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		90	3 D'Agostino & Pearson omnibus normality test	Yes
D21 (CD)		90	3 D'Agostino & Pearson omnibus normality test	No
T21		90	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (CD)		90	3 D'Agostino & Pearson omnibus normality test	Yes
Q21		90	3 D'Agostino & Pearson omnibus normality test	Yes
Q21 (CD)		90	3 D'Agostino & Pearson omnibus normality test	Yes

Figure S3: A

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21 (ciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
D21 (unciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (ciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (unciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (ciliated)		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (unciliated)		90	3 D'Agostino & Pearson omnibus normality test	No

Figure S3: B

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		46	3 D'Agostino & Pearson omnibus normality test	Yes
T21		52	3 D'Agostino & Pearson omnibus normality test	Yes
Q21		51	3 D'Agostino & Pearson omnibus normality test	Yes

Figure S3: E

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		45	3 D'Agostino & Pearson omnibus normality test	Yes
T21		45	3 D'Agostino & Pearson omnibus normality test	Yes
Q21		45	3 D'Agostino & Pearson omnibus normality test	Yes

Figure S3: F

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		150	4 NA	NA
D21 (NZ)		150	4 NA	NA
T21		150	4 NA	NA
T21 (NZ)		150	4 NA	NA
Q21		150	4 NA	NA
Q21 (NZ)		150	4 NA	NA

Figure S3: G (LEFT)

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		90	3 D'Agostino & Pearson omnibus normality test	No
D21 (NZ)		90	3 D'Agostino & Pearson omnibus normality test	Yes
T21		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (NZ)		90	3 D'Agostino & Pearson omnibus normality test	Yes
Q21		90	3 D'Agostino & Pearson omnibus normality test	No

Q21 (NZ)	90		3 D'Agostino & Pearson omnibus normality test	Yes
Figure S3: G (RIGHT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		90	3 D'Agostino & Pearson omnibus normality test	Yes
D21 (NZ)		90	3 D'Agostino & Pearson omnibus normality test	Yes
T21		90	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (NZ)		90	3 D'Agostino & Pearson omnibus normality test	Yes
Q21		90	3 D'Agostino & Pearson omnibus normality test	Yes
Q21 (NZ)		90	3 D'Agostino & Pearson omnibus normality test	Yes
Figure S3: H (LEFT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		90	3 D'Agostino & Pearson omnibus normality test	No
D21 (siPCNT)		90	3 D'Agostino & Pearson omnibus normality test	No
T21		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (siPCNT)		90	3 D'Agostino & Pearson omnibus normality test	No
Q21		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (siPCNT)		90	3 D'Agostino & Pearson omnibus normality test	No
Figure S3: H (MIDDLE)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		90	3 D'Agostino & Pearson omnibus normality test	No
D21 (CD)		90	3 D'Agostino & Pearson omnibus normality test	No
T21		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (CD)		90	3 D'Agostino & Pearson omnibus normality test	No
Q21		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (CD)		90	3 D'Agostino & Pearson omnibus normality test	No
Figure S3: H (RIGHT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		90	3 D'Agostino & Pearson omnibus normality test	No
D21 (NZ)		90	3 D'Agostino & Pearson omnibus normality test	No
T21		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (NZ)		90	3 D'Agostino & Pearson omnibus normality test	No
Q21		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (NZ)		90	3 D'Agostino & Pearson omnibus normality test	No
Figure S3: J (LEFT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		45	3 D'Agostino & Pearson omnibus normality test	No
D21 (CD)		45	3 D'Agostino & Pearson omnibus normality test	No
T21		45	3 D'Agostino & Pearson omnibus normality test	No
T21 (CD)		45	3 D'Agostino & Pearson omnibus normality test	No
Q21		45	3 D'Agostino & Pearson omnibus normality test	No
Q21 (CD)		45	3 D'Agostino & Pearson omnibus normality test	No
Figure S3: J (RIGHT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		45	3 D'Agostino & Pearson omnibus normality test	No
D21 (NZ)		45	3 D'Agostino & Pearson omnibus normality test	No
T21		45	3 D'Agostino & Pearson omnibus normality test	No
T21 (NZ)		45	3 D'Agostino & Pearson omnibus normality test	No
Q21		45	3 D'Agostino & Pearson omnibus normality test	No
Q21 (NZ)		45	3 D'Agostino & Pearson omnibus normality test	No
Figure S3: K (TOP LEFT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
T21		92	3 D'Agostino & Pearson omnibus normality test	Yes
T21 10MIN		111	3 D'Agostino & Pearson omnibus normality test	No
T21 24HR		99	3 D'Agostino & Pearson omnibus normality test	No
Q21		101	3 D'Agostino & Pearson omnibus normality test	No
Q21 10MIN		102	3 D'Agostino & Pearson omnibus normality test	Yes
Q21 24HR		91	3 D'Agostino & Pearson omnibus normality test	No
Figure S3: K (TOP RIGHT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
T21		81	3 D'Agostino & Pearson omnibus normality test	Yes
T21 10MIN		116	3 D'Agostino & Pearson omnibus normality test	Yes
T21 24HR		102	3 D'Agostino & Pearson omnibus normality test	No
Q21		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 10MIN		100	3 D'Agostino & Pearson omnibus normality test	No
Q21 24HR		97	3 D'Agostino & Pearson omnibus normality test	Yes
Figure S3: K (BOTTOM LEFT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
T21		92	3 D'Agostino & Pearson omnibus normality test	No
T21 10MIN		111	3 D'Agostino & Pearson omnibus normality test	No
T21 24HR		99	3 D'Agostino & Pearson omnibus normality test	No
Q21		101	3 D'Agostino & Pearson omnibus normality test	No
Q21 10MIN		102	3 D'Agostino & Pearson omnibus normality test	No

Q21 24HR	91		3 D'Agostino & Pearson omnibus normality test	No
Figure S3: K (BOTTOM RIGHT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
T21		81	3 D'Agostino & Pearson omnibus normality test	Yes
T21 10MIN		116	3 D'Agostino & Pearson omnibus normality test	No
T21 24HR		102	3 D'Agostino & Pearson omnibus normality test	No
Q21		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 10MIN		100	3 D'Agostino & Pearson omnibus normality test	Yes
Q21 24HR		97	3 D'Agostino & Pearson omnibus normality test	No
Figure 4: B				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		90	3 D'Agostino & Pearson omnibus normality test	No
T21		90	3 D'Agostino & Pearson omnibus normality test	No
Q21		90	3 D'Agostino & Pearson omnibus normality test	No
Figure 4: C				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		89	3 D'Agostino & Pearson omnibus normality test	No
T21		86	3 D'Agostino & Pearson omnibus normality test	No
Q21		96	3 D'Agostino & Pearson omnibus normality test	No
Figure 4: E				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		90	3 D'Agostino & Pearson omnibus normality test	No
T21		90	3 D'Agostino & Pearson omnibus normality test	No
Q21		90	3 D'Agostino & Pearson omnibus normality test	No
Figure 4: F				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21 (siPCNT)		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (siPCNT)		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (siPCNT)		90	3 D'Agostino & Pearson omnibus normality test	No
Figure 4: G (LEFT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
T21		45	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (siPCNT)		45	3 D'Agostino & Pearson omnibus normality test	Yes
Q21		45	3 D'Agostino & Pearson omnibus normality test	Yes
Q21 (siPCNT)		45	3 D'Agostino & Pearson omnibus normality test	No
Figure 4: G (RIGHT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
T21		45	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (siPCNT)		45	3 D'Agostino & Pearson omnibus normality test	Yes
Q21		45	3 D'Agostino & Pearson omnibus normality test	Yes
Q21 (siPCNT)		45	3 D'Agostino & Pearson omnibus normality test	No
Figure 4: I				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21 (CD)		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (CD)		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (CD)		90	3 D'Agostino & Pearson omnibus normality test	No
Figure 4: J (LEFT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
T21		45	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (CD)		45	3 D'Agostino & Pearson omnibus normality test	Yes
Q21		45	3 D'Agostino & Pearson omnibus normality test	No
Q21 (CD)		45	3 D'Agostino & Pearson omnibus normality test	Yes
Figure 4: J (RIGHT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
T21		45	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (CD)		45	3 D'Agostino & Pearson omnibus normality test	Yes
Q21		45	3 D'Agostino & Pearson omnibus normality test	No
Q21 (CD)		45	3 D'Agostino & Pearson omnibus normality test	Yes
Figure 4: K				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21 (NZ)		90	3 D'Agostino & Pearson omnibus normality test	No
T21 (NZ)		90	3 D'Agostino & Pearson omnibus normality test	No
Q21 (NZ)		90	3 D'Agostino & Pearson omnibus normality test	No
Figure 4: L (LEFT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
T21		45	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (NZ)		45	3 D'Agostino & Pearson omnibus normality test	Yes
Q21		45	3 D'Agostino & Pearson omnibus normality test	Yes

Q21 (NZ)	45		3 D'Agostino & Pearson omnibus normality test	No
Figure 4: L (RIGHT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
T21		45	3 D'Agostino & Pearson omnibus normality test	Yes
T21 (NZ)		45	3 D'Agostino & Pearson omnibus normality test	Yes
Q21		45	3 D'Agostino & Pearson omnibus normality test	Yes
Q21 (NZ)		45	3 D'Agostino & Pearson omnibus normality test	Yes
Figure S4: B				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21 siPCM1		126	4 D'Agostino & Pearson omnibus normality test	No
T21 siPCM1		159	4 D'Agostino & Pearson omnibus normality test	No
Q21 siPCM1		178	4 D'Agostino & Pearson omnibus normality test	No
Figure S4: D (LEFT; CEP290, CEP131, PCNT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		45	3 NA	NA
T21		45	3 NA	NA
Q21		45	3 NA	NA
Figure S4: D (RIGHT; PCM1, CEP131, PCNT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		45	3 NA	NA
T21		45	3 NA	NA
Q21		45	3 NA	NA
Figure S4: G (TOP LEFT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		123	4 D'Agostino & Pearson omnibus normality test	No
T21		125	4 D'Agostino & Pearson omnibus normality test	No
Q21		144	4 D'Agostino & Pearson omnibus normality test	No
D21 CD		87	4 D'Agostino & Pearson omnibus normality test	No
T21 CD		91	4 D'Agostino & Pearson omnibus normality test	No
Q21 CD		88	4 D'Agostino & Pearson omnibus normality test	No
D21 NZ		87	4 D'Agostino & Pearson omnibus normality test	No
T21 NZ		90	4 D'Agostino & Pearson omnibus normality test	No
Q21 NZ		92	4 D'Agostino & Pearson omnibus normality test	No
Figure S4: G (TOP MIDDLE)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		136	3 D'Agostino & Pearson omnibus normality test	No
T21		147	3 D'Agostino & Pearson omnibus normality test	No
Q21		143	3 D'Agostino & Pearson omnibus normality test	No
D21 CD		136	3 D'Agostino & Pearson omnibus normality test	No
T21 CD		160	3 D'Agostino & Pearson omnibus normality test	No
Q21 CD		135	3 D'Agostino & Pearson omnibus normality test	No
D21 NZ		120	3 D'Agostino & Pearson omnibus normality test	No
T21 NZ		143	3 D'Agostino & Pearson omnibus normality test	No
Q21 NZ		148	3 D'Agostino & Pearson omnibus normality test	No
Figure S4: G (TOP RIGHT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		130	3 D'Agostino & Pearson omnibus normality test	No
T21		134	3 D'Agostino & Pearson omnibus normality test	No
Q21		150	3 D'Agostino & Pearson omnibus normality test	No
D21 CD		149	3 D'Agostino & Pearson omnibus normality test	No
T21 CD		139	3 D'Agostino & Pearson omnibus normality test	No
Q21 CD		135	3 D'Agostino & Pearson omnibus normality test	No
D21 NZ		130	3 D'Agostino & Pearson omnibus normality test	No
T21 NZ		143	3 D'Agostino & Pearson omnibus normality test	No
Q21 NZ		150	3 D'Agostino & Pearson omnibus normality test	No
Figure S4: G (BOTTOM LEFT)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		108	4 D'Agostino & Pearson omnibus normality test	No
T21		111	4 D'Agostino & Pearson omnibus normality test	No
Q21		128	4 D'Agostino & Pearson omnibus normality test	No
D21 CD		66	4 D'Agostino & Pearson omnibus normality test	No
T21 CD		75	4 D'Agostino & Pearson omnibus normality test	No
Q21 CD		78	4 D'Agostino & Pearson omnibus normality test	No
D21 NZ		84	4 D'Agostino & Pearson omnibus normality test	No
T21 NZ		87	4 D'Agostino & Pearson omnibus normality test	Yes
Q21 NZ		89	4 D'Agostino & Pearson omnibus normality test	Yes
Figure S4: G (BOTTOM MIDDLE)				
Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21		136	3 D'Agostino & Pearson omnibus normality test	No
T21		146	3 D'Agostino & Pearson omnibus normality test	No
Q21		143	3 D'Agostino & Pearson omnibus normality test	No
D21 CD		137	3 D'Agostino & Pearson omnibus normality test	No

T21 CD	160	3 D'Agostino & Pearson omnibus normality test	No
Q21 CD	137	3 D'Agostino & Pearson omnibus normality test	No
D21 NZ	120	3 D'Agostino & Pearson omnibus normality test	No
T21 NZ	143	3 D'Agostino & Pearson omnibus normality test	No
Q21 NZ	150	3 D'Agostino & Pearson omnibus normality test	No

Figure S4: G (BOTTOM RIGHT)

Sample	n	Biological replicates	Normality Test	Normally Distributed?
D21	126		3 D'Agostino & Pearson omnibus normality test	No
T21	145		3 D'Agostino & Pearson omnibus normality test	No
Q21	154		3 D'Agostino & Pearson omnibus normality test	No
D21 CD	143		3 D'Agostino & Pearson omnibus normality test	No
T21 CD	143		3 D'Agostino & Pearson omnibus normality test	No
Q21 CD	142		3 D'Agostino & Pearson omnibus normality test	No
D21 NZ	125		3 D'Agostino & Pearson omnibus normality test	No
T21 NZ	135		3 D'Agostino & Pearson omnibus normality test	No
Q21 NZ	151		3 D'Agostino & Pearson omnibus normality test	No

P-VALUES

Figure 1: B

Samples compared	Statistical test	p-value
D21 v T21	Student's two tailed	0.0478
D21 v Q21	Student's two tailed	0.0051

Figure 1: D

Samples compared	Statistical test	p-value
D21 (ciliated) V T21 (ciliated)	Mann-Whitney U tes	0.0252
D21 (ciliated) V Q21 (ciliated)	Mann-Whitney U tes	0.0000
D21 (unciliated) V T21 (unciliated)	Mann-Whitney U tes	0.0000
D21 (unciliated) V Q21 (unciliated)	Mann-Whitney U tes	0.0000
D21 (combined) V T21 (combined)	Mann-Whitney U tes	0.0000
D21 (combined) V Q21 (combined)	Mann-Whitney U tes	0.0000

Figure 1: E (LEFT GRAPH)

Samples compared	Statistical test	p-value
D21 V D21 (siPCNT)	Mann-Whitney U tes	0.0000
T21 V T21 (siPCNT)	Mann-Whitney U tes	0.0000
Q21 V Q21 (siPCNT)	Mann-Whitney U tes	0.0000
T21 (3n PCNT) V T21 (2n PCNT)	Mann-Whitney U tes	0.0000

Figure 1: E (RIGHT GRAPH)

Samples compared	Statistical test	p-value
D21 V D21 (siPCNT)	Student's two tailed	0.5377
T21 V T21 (siPCNT)	Student's two tailed	0.0082
Q21 V Q21 (siPCNT)	Student's two tailed	0.0092
T21 (3n PCNT) V T21 (2n PCNT)	Student's two tailed	0.0866

Figure S1: B

Samples compared	Statistical test	p-value
D21 v T21	Mann-Whitney U tes	0.31
D21 v Q21	Mann-Whitney U tes	0.1034

Figure S1: D

Samples compared	Statistical test	p-value
D21 v T21	Mann-Whitney U tes	0.0000
D21 v Q21	Mann-Whitney U tes	0.0000

Figure S1: E

Samples compared	Statistical test	p-value
D21 v T21	Student's two tailed	0.9198
D21 v Q21	Student's two tailed	0.6001

Figure S1: F

Samples compared	Statistical test	p-value
D21 v T21	Mann-Whitney U tes	0.6515
D21 v Q21	Mann-Whitney U tes	0.0012

Figure 2: C

Samples compared	Statistical test	p-value
D21 (ciliated) V D21 (unciliated): A	Mann-Whitney U tes	0.0042
D21 (ciliated) V D21 (unciliated): B	Mann-Whitney U tes	0.0328
D21 (ciliated) V D21 (unciliated): C	Mann-Whitney U tes	0.0483
D21 (ciliated) V D21 (unciliated): D	Mann-Whitney U tes	0.4313
D21 (ciliated) V T21 (ciliated): A	Mann-Whitney U tes	0.0468
D21 (ciliated) V T21 (ciliated): B	Mann-Whitney U tes	0.1828
D21 (ciliated) V T21 (ciliated): C	Mann-Whitney U tes	0.2519

D21 (ciliated) V T21 (ciliated): D	Mann-Whitney U tes	0.3047	
D21 (ciliated) V T21 (unciliated): A	Mann-Whitney U tes	0.02131	
D21 (ciliated) V T21 (unciliated): B	Mann-Whitney U tes	0.0403	
D21 (ciliated) V T21 (unciliated): C	Mann-Whitney U tes	0.1113	
D21 (ciliated) V T21 (unciliated): D	Mann-Whitney U tes	0.2416	
D21 (ciliated) V Q21 (ciliated): A	Mann-Whitney U tes	0.0055	
D21 (ciliated) V Q21 (ciliated): B	Mann-Whitney U tes	0.0188	
D21 (ciliated) V Q21 (ciliated): C	Mann-Whitney U tes	0.0902	
D21 (ciliated) V Q21 (ciliated): D	Mann-Whitney U tes	0.2610	
D21 (ciliated) V Q21 (unciliated): A	Mann-Whitney U tes	0.0049	
D21 (ciliated) V Q21 (unciliated): B	Mann-Whitney U tes	0.0211	
D21 (ciliated) V Q21 (unciliated): C	Mann-Whitney U tes	0.0473	
D21 (ciliated) V Q21 (unciliated): D	Mann-Whitney U tes	0.2002	

Figure 2: D

Samples compared	Statistical test	p-value	
D21 (ciliated) v D21 (unciliated)	Mann-Whitney U tes	0.1951	
D21 (ciliated) v T21 (ciliated)	Mann-Whitney U tes	0.5035	
D21 (ciliated) v T21 (unciliated)	Mann-Whitney U tes	0.1906	
D21 (ciliated) v Q21 (ciliated)	Mann-Whitney U tes	0.8506	
D21 (ciliated) v Q21 (unciliated)	Mann-Whitney U tes	0.0537	

Figure 2: F

Samples compared	Statistical test	p-value	
T21 V T21 (2n PCNT) ciliated: A	Mann-Whitney U tes	0.0145	
T21 V T21 (2n PCNT) ciliated: B	Mann-Whitney U tes	0.0438	
T21 V T21 (2n PCNT) ciliated: C	Mann-Whitney U tes	0.6502	
T21 V T21 (2n PCNT) ciliated: D	Mann-Whitney U tes	0.0431	
T21 V T21 (2n PCNT) unciliated: A	Mann-Whitney U tes	0.0138	
T21 V T21 (2n PCNT) unciliated: B	Mann-Whitney U tes	0.2821	
T21 V T21 (2n PCNT) unciliated: C	Mann-Whitney U tes	0.3365	
T21 V T21 (2n PCNT) unciliated: D	Mann-Whitney U tes	0.0482	
T21 V T21 (siPCNT) ciliated : A	Mann-Whitney U tes	0.0219	
T21 V T21 (siPCNT) ciliated : B	Mann-Whitney U tes	0.0021	
T21 V T21 (siPCNT) ciliated : C	Mann-Whitney U tes	0.0110	
T21 V T21 (siPCNT) ciliated : D	Mann-Whitney U tes	0.0980	
T21 V T21 (siPCNT) unciliated : A	Mann-Whitney U tes	0.0335	
T21 V T21 (siPCNT) unciliated : B	Mann-Whitney U tes	0.0021	
T21 V T21 (siPCNT) unciliated : C	Mann-Whitney U tes	0.0063	
T21 V T21 (siPCNT) unciliated : D	Mann-Whitney U tes	0.1200	
Q21 V Q21 (siPCNT) ciliated : A	Mann-Whitney U tes	0.0076	
Q21 V Q21 (siPCNT) ciliated : B	Mann-Whitney U tes	0.0004	
Q21 V Q21 (siPCNT) ciliated : C	Mann-Whitney U tes	0.0008	
Q21 V Q21 (siPCNT) ciliated : D	Mann-Whitney U tes	0.0223	
Q21 V Q21 (siPCNT) unciliated : A	Mann-Whitney U tes	0.0060	
Q21 V Q21 (siPCNT) unciliated : B	Mann-Whitney U tes	0.0009	
Q21 V Q21 (siPCNT) unciliated : C	Mann-Whitney U tes	0.0013	
Q21 V Q21 (siPCNT) unciliated : D	Mann-Whitney U tes	0.0236	

Figure 2: G (LEFT)

Samples compared	Statistical test	p-value	
D21 v T21	Student's two tailed	0.0000	
D21 v Q21	Student's two tailed	0.0000	

Figure 2: G (RIGHT)

Samples compared	Statistical test	p-value	
D21 v T21	Mann-Whitney U tes	0.0000	
D21 v Q21	Mann-Whitney U tes	0.0000	

Figure S2: A (TOP)

Samples compared	Statistical test	p-value	
D21 (ciliated) V D21 (unciliated): A	Mann-Whitney U tes	0.0042	
D21 (ciliated) V D21 (unciliated): B	Mann-Whitney U tes	0.0328	
D21 (ciliated) V D21 (unciliated): C	Mann-Whitney U tes	0.0483	
D21 (ciliated) V D21 (unciliated): D	Mann-Whitney U tes	0.4313	
T21 (ciliated) V T21 (unciliated): A	Student's two tailed	0.0076	
T21 (ciliated) V T21 (unciliated): B	Student's two tailed	0.0471	
T21 (ciliated) V T21 (unciliated): C	Student's two tailed	0.2079	
T21 (ciliated) V T21 (unciliated): D	Student's two tailed	0.3326	
Q21 (ciliated) V Q21 (unciliated): A	Mann-Whitney U tes	0.0273	
Q21 (ciliated) V Q21 (unciliated): B	Mann-Whitney U tes	0.0423	
Q21 (ciliated) V Q21 (unciliated): C	Mann-Whitney U tes	0.1677	
Q21 (ciliated) V Q21 (unciliated): D	Mann-Whitney U tes	0.3050	

Figure S2: D

Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.0000	
D21 V Q21	Mann-Whitney U tes	0.0000	

Figure S2: E (TOP)

Samples compared	Statistical test	p-value	
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D21 V T21	Mann-Whitney U tes	0.0006	
D21 V Q21	Mann-Whitney U tes	0.0000	
Figure S2: E (BOTTOM)			
Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.6371	
D21 V Q21	Mann-Whitney U tes	0.3966	
Figure S2: G (LEFT)			
Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.0000	
D21 V Q21	Mann-Whitney U tes	0.0000	
Figure S2: G (RIGHT)			
Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.0000	
D21 V Q21	Mann-Whitney U tes	0.0000	
Figure S2: H (TUBULIN)			
Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.2701	
D21 V Q21	Student's two tailed	0.0104	
Figure S2: H (AC. TUBULIN)			
Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.2842	
D21 V Q21	Mann-Whitney U tes	0.0899	
Figure S2: H (GLUT. TUBULIN)			
Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.1339	
D21 V Q21	Mann-Whitney U tes	0.7754	
Figure S2: H (DETYR. TUBULIN)			
Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.3901	
D21 V Q21	Mann-Whitney U tes	0.0025	
Figure S2: I (TOP)			
Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.0000	
D21 V Q21	Mann-Whitney U tes	0.0000	
Figure S2: I (BOTTOM)			
Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.6313	
D21 V Q21	Mann-Whitney U tes	0.335	
Figure S2: K (LEFT)			
Samples compared	Statistical test	p-value	
D21 V T21 (1.2um)	Student's two tailed	0.5524	
D21 V Q21 (1.2um)	Student's two tailed	0.3237	
D21 V T21 (2.0um)	Student's two tailed	0.6223	
D21 V Q21 (2.0um)	Student's two tailed	0.3895	
D21 V T21 (5.0um)	Student's two tailed	0.9927	
D21 V Q21 (5.0um)	Student's two tailed	0.8972	
Figure S2: K (RIGHT)			
Samples compared	Statistical test	p-value	
D21 V T21 (0.5-1.2um)	Student's two tailed	0.0656	
D21 V Q21 (0.5-1.2um)	Student's two tailed	0.0372	
D21 V T21 (1.2-2.0um)	Student's two tailed	0.4227	
D21 V Q21 (1.2-2.0um)	Student's two tailed	0.6133	
D21 V T21 (2.0-5.0um)	Student's two tailed	0.4346	
D21 V Q21 (2.0-5.0um)	Student's two tailed	0.4859	
Figure 3: B			
Samples compared	Statistical test	p-value	
D21 (ciliated) V D21 (unciliated): A	Mann-Whitney U tes	0.2480	
D21 (ciliated) V D21 (unciliated): B	Mann-Whitney U tes	0.0685	
D21 (ciliated) V D21 (unciliated): C	Mann-Whitney U tes	0.0115	
D21 (ciliated) V D21 (unciliated): D	Mann-Whitney U tes	0.0335	
D21 (ciliated) V T21 (ciliated): A	Mann-Whitney U tes	0.0820	
D21 (ciliated) V T21 (ciliated): B	Mann-Whitney U tes	0.1122	
D21 (ciliated) V T21 (ciliated): C	Mann-Whitney U tes	0.0493	
D21 (ciliated) V T21 (ciliated): D	Mann-Whitney U tes	0.0989	
D21 (ciliated) V T21 (unciliated): A	Mann-Whitney U tes	0.0729	
D21 (ciliated) V T21 (unciliated): B	Mann-Whitney U tes	0.0714	
D21 (ciliated) V T21 (unciliated): C	Mann-Whitney U tes	0.0398	
D21 (ciliated) V T21 (unciliated): D	Mann-Whitney U tes	0.0237	

D21 (ciliated) V Q21 (ciliated): A	Mann-Whitney U tes	0.7526	
D21 (ciliated) V Q21 (ciliated): B	Mann-Whitney U tes	0.2302	
D21 (ciliated) V Q21 (ciliated): C	Mann-Whitney U tes	0.1703	
D21 (ciliated) V Q21 (ciliated): D	Mann-Whitney U tes	0.2965	
D21 (ciliated) V Q21 (unciliated): A	Mann-Whitney U tes	0.4068	
D21 (ciliated) V Q21 (unciliated): B	Mann-Whitney U tes	0.1872	
D21 (ciliated) V Q21 (unciliated): C	Mann-Whitney U tes	0.0428	
D21 (ciliated) V Q21 (unciliated): D	Mann-Whitney U tes	0.0422	
Figure 3: D (LEFT)			
Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.0299	
D21 V Q21	Mann-Whitney U tes	0.0003	
Figure 3: D (RIGHT)			
Samples compared	Statistical test	p-value	
D21 V T21	Student's two tailed	0.0000	
D21 V Q21	Student's two tailed	0.0000	
Figure 3: F (LEFT)			
Samples compared	Statistical test	p-value	
D21 V D21 (siPCNT)	Mann-Whitney U tes	0.0660	
T21 V T21 (siPCNT)	Student's two tailed	0.0000	
Q21 V Q21 (siPCNT)	Mann-Whitney U tes	0.0000	
T21 (3n PCNT) V T21 (2n PCNT)	Mann-Whitney U tes	0.0000	
Figure 3: F (RIGHT)			
Samples compared	Statistical test	p-value	
D21 V D21 (siPCNT)	Mann-Whitney U tes	0.0000	
T21 V T21 (siPCNT)	Student's two tailed	0.0000	
Q21 V Q21 (siPCNT)	Student's two tailed	0.0000	
Figure 3: I			
Samples compared	Statistical test	p-value	
D21 V D21 (CD) ciliated: A	Mann-Whitney U tes	0.1356	
D21 V D21 (CD) ciliated: B	Mann-Whitney U tes	0.3434	
D21 V D21 (CD) ciliated: C	Mann-Whitney U tes	0.4654	
D21 V D21 (CD) ciliated: D	Mann-Whitney U tes	0.5029	
D21 V D21 (CD) unciliated: A	Mann-Whitney U tes	0.6125	
D21 V D21 (CD) unciliated: B	Mann-Whitney U tes	0.0889	
D21 V D21 (CD) unciliated: C	Mann-Whitney U tes	0.4310	
D21 V D21 (CD) unciliated: D	Mann-Whitney U tes	0.7122	
T21 V T21 (CD) ciliated: A	Mann-Whitney U tes	0.0803	
T21 V T21 (CD) ciliated: B	Mann-Whitney U tes	0.1245	
T21 V T21 (CD) ciliated: C	Mann-Whitney U tes	0.2175	
T21 V T21 (CD) ciliated: D	Mann-Whitney U tes	0.3114	
T21 V T21 (CD) unciliated: A	Mann-Whitney U tes	0.1523	
T21 V T21 (CD) unciliated: B	Mann-Whitney U tes	0.3735	
T21 V T21 (CD) unciliated: C	Mann-Whitney U tes	0.5577	
T21 V T21 (CD) unciliated: D	Mann-Whitney U tes	0.5208	
Q21 V Q21 (CD) ciliated: A	Mann-Whitney U tes	0.0098	
Q21 V Q21 (CD) ciliated: B	Mann-Whitney U tes	0.0488	
Q21 V Q21 (CD) ciliated: C	Mann-Whitney U tes	0.0469	
Q21 V Q21 (CD) ciliated: D	Mann-Whitney U tes	0.2203	
Q21 V Q21 (CD) unciliated: A	Mann-Whitney U tes	0.1541	
Q21 V Q21 (CD) unciliated: B	Mann-Whitney U tes	0.3308	
Q21 V Q21 (CD) unciliated: C	Mann-Whitney U tes	0.1122	
Q21 V Q21 (CD) unciliated: D	Mann-Whitney U tes	0.1744	
Figure 3: J			
Samples compared	Statistical test	p-value	
D21 V D21 (CD)	Student's two tailed	0.2829	
T21 V T21 (CD)	Student's two tailed	0.0040	
Q21 V Q21 (CD)	Student's two tailed	0.0135	
Figure 3: K (LEFT)			
Samples compared	Statistical test	p-value	
D21 V D21 (CD)	Mann-Whitney U tes	0.0000	
T21 V T21 (CD)	Mann-Whitney U tes	0.0000	
Q21 V Q21 (CD)	Mann-Whitney U tes	0.0000	
Figure 3: K (RIGHT)			
Samples compared	Statistical test	p-value	
D21 V D21 (CD)	Mann-Whitney U tes	0.3688	
T21 V T21 (CD)	Student's two tailed	0.0000	
Q21 V Q21 (CD)	Student's two tailed	0.0000	
Figure S3: A			
Samples compared	Statistical test	p-value	
D21 (ciliated) V D21 (unciliated): A	Mann-Whitney U tes	0.2480	
D21 (ciliated) V D21 (unciliated): B	Mann-Whitney U tes	0.0685	

D21 (ciliated) V D21 (unciliated): C	Mann-Whitney U tes	0.0115	
D21 (ciliated) V D21 (unciliated): D	Mann-Whitney U tes	0.0335	
T21 (ciliated) V T21 (unciliated): A	Mann-Whitney U tes	0.0485	
T21 (ciliated) V T21 (unciliated): B	Mann-Whitney U tes	0.0151	
T21 (ciliated) V T21 (unciliated): C	Mann-Whitney U tes	0.5449	
T21 (ciliated) V T21 (unciliated): D	Mann-Whitney U tes	0.0139	
Q21 (ciliated) V Q21 (unciliated): A	Mann-Whitney U tes	0.0223	
Q21 (ciliated) V Q21 (unciliated): B	Mann-Whitney U tes	0.0320	
Q21 (ciliated) V Q21 (unciliated): C	Mann-Whitney U tes	0.2312	
Q21 (ciliated) V Q21 (unciliated): D	Mann-Whitney U tes	0.0248	
Figure S3: B			
Samples compared	Statistical test	p-value	
D21 correlation	Student's two tailed	0.0000	
T21 correlation	Student's two tailed	0.1269	
Q21 correlation	Student's two tailed	0.0000	
Figure S3: E			
Samples compared	Statistical test	p-value	
D21 V T21	Student's two tailed	0.0000	
D21 V Q21	Student's two tailed	0.0000	
Figure S3: F			
Samples compared	Statistical test	p-value	
D21 V D21 (NZ)	Student's two tailed	0.3120	
T21 V T21 (NZ)	Student's two tailed	0.5620	
Q21 V Q21 (NZ)	Student's two tailed	0.0500	
Figure S3: G (LEFT)			
Samples compared	Statistical test	p-value	
D21 V D21 (NZ)	Mann-Whitney U tes	0.8275	
T21 V T21 (NZ)	Mann-Whitney U tes	0.0000	
Q21 V Q21 (NZ)	Mann-Whitney U tes	0.0000	
Figure S3: G (RIGHT)			
Samples compared	Statistical test	p-value	
D21 V D21 (NZ)	Student's two tailed	0.6968	
T21 V T21 (NZ)	Student's two tailed	0.0000	
Q21 V Q21 (NZ)	Student's two tailed	0.0000	
Figure S3: H (LEFT)			
Samples compared	Statistical test	p-value	
D21 V D21 (siPCNT)	Mann-Whitney U tes	0.0000	
T21 V T21 (siPCNT)	Mann-Whitney U tes	0.0000	
Q21 V Q21 (siPCNT)	Mann-Whitney U tes	0.0000	
Figure S3: H (MIDDLE)			
Samples compared	Statistical test	p-value	
D21 V D21 (CD)	Mann-Whitney U tes	0.2000	
T21 V T21 (CD)	Mann-Whitney U tes	0.0000	
Q21 V Q21 (CD)	Mann-Whitney U tes	0.0000	
Figure S3: H (RIGHT)			
Samples compared	Statistical test	p-value	
D21 V D21 (NZ)	Mann-Whitney U tes	0.0000	
T21 V T21 (NZ)	Mann-Whitney U tes	0.0000	
Q21 V Q21 (NZ)	Mann-Whitney U tes	0.0000	
Figure S3: J (LEFT)			
Samples compared	Statistical test	p-value	
D21 (0 minute) V T21 (0 minute)	Mann-Whitney U tes	0.1076	
D21 (0 minute) V Q21 (0 minute)	Mann-Whitney U tes	0.0928	
Figure S3: J (RIGHT)			
Samples compared	Statistical test	p-value	
D21 (0 minute) V T21 (0 minute)	Mann-Whitney U tes	0.5927	
D21 (0 minute) V Q21 (0 minute)	Mann-Whitney U tes	0.6095	
Figure S3: K (TOP LEFT)			
Samples compared	Statistical test	p-value	
T21 V T21 24HR	Mann-Whitney U tes	0.0000	
Q21 V Q21 24HR	Mann-Whitney U tes	0.0000	
Figure S3: K (TOP RIGHT)			
Samples compared	Statistical test	p-value	
T21 V T21 24HR	Mann-Whitney U tes	0.0000	
Q21 V Q21 24HR	Mann-Whitney U tes	0.0000	
Figure S3: K (BOTTOM LEFT)			
Samples compared	Statistical test	p-value	

T21 V T21 24HR	Mann-Whitney U tes	0.0000	
Q21 V Q21 24HR	Mann-Whitney U tes	0.0000	
Figure S3: K (BOTTOM RIGHT)			
Samples compared	Statistical test	p-value	
T21 V T21 24HR	Mann-Whitney U tes	0.2678	
Q21 V Q21 24HR	Mann-Whitney U tes	0.3756	
Figure 4: B			
Samples compared	Statistical test	p-value	
D21 vs T21	Mann-Whitney U tes	0.0000	
D21 vs Q21	Mann-Whitney U tes	0.0000	
Figure 4: C			
Samples compared	Statistical test	p-value	
D21 V T21: A	Mann-Whitney U tes	0.1237	
D21 V T21: B	Mann-Whitney U tes	0.0143	
D21 V T21: C	Mann-Whitney U tes	0.0238	
D21 V T21: D	Mann-Whitney U tes	0.0850	
D21 V Q21: A	Mann-Whitney U tes	0.1040	
D21 V Q21: B	Mann-Whitney U tes	0.0067	
D21 V Q21: C	Mann-Whitney U tes	0.0037	
D21 V Q21: D	Mann-Whitney U tes	0.0006	
Figure 4: E			
Samples compared	Statistical test	p-value	
D21 V T21	Student's two tailed	0.0101	
D21 V Q21	Student's two tailed	0.0000	
Figure 4: F			
Samples compared	Statistical test	p-value	
D21 V D21 (siPCNT): A	Mann-Whitney U tes	0.0268	
D21 V D21 (siPCNT): B	Mann-Whitney U tes	0.0219	
D21 V D21 (siPCNT): C	Mann-Whitney U tes	0.0082	
D21 V D21 (siPCNT): D	Mann-Whitney U tes	0.0106	
T21 V T21 (siPCNT): A	Mann-Whitney U tes	0.0060	
T21 V T21 (siPCNT): B	Mann-Whitney U tes	0.0012	
T21 V T21 (siPCNT): C	Mann-Whitney U tes	0.0038	
T21 V T21 (siPCNT): D	Mann-Whitney U tes	0.0140	
Q21 V Q21 (siPCNT): A	Mann-Whitney U tes	0.1040	
Q21 V Q21 (siPCNT): B	Mann-Whitney U tes	0.0067	
Q21 V Q21 (siPCNT): C	Mann-Whitney U tes	0.0037	
Q21 V Q21 (siPCNT): D	Mann-Whitney U tes	0.0006	
Figure 4: G (LEFT)			
Samples compared	Statistical test	p-value	
T21 V T21 (siPCNT)	Student's two tailed	0.0000	
Q21 V Q21 (siPCNT)	Mann-Whitney U tes	0.0000	
Figure 4: G (RIGHT)			
Samples compared	Statistical test	p-value	
T21 V T21 (siPCNT)	Student's two tailed	0.0000	
Q21 V Q21 (siPCNT)	Mann-Whitney U tes	0.0000	
Figure 4: I			
Samples compared	Statistical test	p-value	
D21 V D21 (CD): A	Mann-Whitney U tes	0.1945	
D21 V D21 (CD): B	Mann-Whitney U tes	0.1618	
D21 V D21 (CD): C	Mann-Whitney U tes	0.2421	
D21 V D21 (CD): D	Mann-Whitney U tes	0.4131	
T21 V T21 (CD): A	Mann-Whitney U tes	0.4330	
T21 V T21 (CD): B	Mann-Whitney U tes	0.1390	
T21 V T21 (CD): C	Mann-Whitney U tes	0.1091	
T21 V T21 (CD): D	Mann-Whitney U tes	0.2874	
Q21 V Q21 (CD): A	Mann-Whitney U tes	0.1040	
Q21 V Q21 (CD): B	Mann-Whitney U tes	0.0067	
Q21 V Q21 (CD): C	Mann-Whitney U tes	0.0037	
Q21 V Q21 (CD): D	Mann-Whitney U tes	0.0006	
Figure 4: J (LEFT)			
Samples compared	Statistical test	p-value	
T21 V T21 (CD)	Student's two tailed	0.0000	
Q21 V Q21 (CD)	Mann-Whitney U tes	0.0000	
Figure 4: J (RIGHT)			
Samples compared	Statistical test	p-value	
T21 V T21 (CD)	Student's two tailed	0.0000	
Q21 V Q21 (CD)	Mann-Whitney U tes	0.0038	
Figure 4: K			

Samples compared	Statistical test	p-value	
D21 V D21 (NZ): A	Mann-Whitney U tes	0.9080	
D21 V D21 (NZ): B	Mann-Whitney U tes	0.9832	
D21 V D21 (NZ): C	Mann-Whitney U tes	0.6217	
D21 V D21 (NZ): D	Mann-Whitney U tes	0.6331	
T21 V T21 (NZ): A	Mann-Whitney U tes	0.5671	
T21 V T21 (NZ): B	Mann-Whitney U tes	0.4686	
T21 V T21 (NZ): C	Mann-Whitney U tes	0.5299	
T21 V T21 (NZ): D	Mann-Whitney U tes	0.4221	
Q21 V Q21 (NZ): A	Mann-Whitney U tes	0.4377	
Q21 V Q21 (NZ): B	Mann-Whitney U tes	0.4441	
Q21 V Q21 (NZ): C	Mann-Whitney U tes	0.5193	
Q21 V Q21 (NZ): D	Mann-Whitney U tes	0.5683	
Figure 4: L (LEFT)			
Samples compared	Statistical test	p-value	
T21 V T21 (NZ)	Student's two tailed	0.0000	
Q21 V Q21 (NZ)	Mann-Whitney U tes	0.0000	
Figure 4: L (RIGHT)			
Samples compared	Statistical test	p-value	
T21 V T21 (NZ)	Student's two tailed	0.0017	
Q21 V Q21 (NZ)	Student's two tailed	0.9696	
Figure S4: B			
Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.0000	
D21 V Q21	Mann-Whitney U tes	0.0000	
Figure S4: G (TOP LEFT)			
Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.0000	
D21 V Q21	Mann-Whitney U tes	0.0000	
D21 CD V T21 CD	Mann-Whitney U tes	0.8545	
D21 CD V Q21 CD	Mann-Whitney U tes	0.0000	
D21 NZ V T21 NZ	Mann-Whitney U tes	0.0000	
D21 NZ V Q21 NZ	Mann-Whitney U tes	0.0000	
D21 V D21 CD	Mann-Whitney U tes	0.0000	
T21 V T21 CD	Mann-Whitney U tes	0.0000	
Q21 V Q21 CD	Mann-Whitney U tes	0.0644	
D21 V D21 NZ	Mann-Whitney U tes	0.1562	
T21 V T21 NZ	Mann-Whitney U tes	0.0144	
Q21 V Q21 NZ	Mann-Whitney U tes	0.0256	
Figure S4: G (TOP MIDDLE)			
Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.8632	
D21 V Q21	Mann-Whitney U tes	0.0000	
D21 CD V T21 CD	Mann-Whitney U tes	0.7899	
D21 CD V Q21 CD	Mann-Whitney U tes	0.0000	
D21 NZ V T21 NZ	Mann-Whitney U tes	0.0144	
D21 NZ V Q21 NZ	Mann-Whitney U tes	0.1240	
D21 V D21 CD	Mann-Whitney U tes	0.8342	
T21 V T21 CD	Mann-Whitney U tes	0.0000	
Q21 V Q21 CD	Mann-Whitney U tes	0.0000	
D21 V D21 NZ	Mann-Whitney U tes	0.0703	
T21 V T21 NZ	Mann-Whitney U tes	0.4872	
Q21 V Q21 NZ	Mann-Whitney U tes	0.0633	
Figure S4: G (TOP RIGHT)			
Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.2677	
D21 V Q21	Mann-Whitney U tes	0.9369	
D21 CD V T21 CD	Mann-Whitney U tes	0.6928	
D21 CD V Q21 CD	Mann-Whitney U tes	0.0565	
D21 NZ V T21 NZ	Mann-Whitney U tes	0.0019	
D21 NZ V Q21 NZ	Mann-Whitney U tes	0.0140	
D21 V D21 CD	Mann-Whitney U tes	0.0000	
T21 V T21 CD	Mann-Whitney U tes	0.0000	
Q21 V Q21 CD	Mann-Whitney U tes	0.0000	
D21 V D21 NZ	Mann-Whitney U tes	0.0009	
T21 V T21 NZ	Mann-Whitney U tes	0.0826	
Q21 V Q21 NZ	Mann-Whitney U tes	0.3573	
Figure S4: G (BOTTOM LEFT)			
Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.0000	
D21 V Q21	Mann-Whitney U tes	0.0000	
D21 CD V T21 CD	Mann-Whitney U tes	0.0020	
D21 CD V Q21 CD	Mann-Whitney U tes	0.0162	
D21 NZ V T21 NZ	Mann-Whitney U tes	0.0000	

D21 NZ V Q21 NZ	Mann-Whitney U tes	0.0000	
D21 V D21 CD	Mann-Whitney U tes	0.8342	
T21 V T21 CD	Mann-Whitney U tes	0.0000	
Q21 V Q21 CD	Mann-Whitney U tes	0.0000	
D21 V D21 NZ	Mann-Whitney U tes	0.7072	
T21 V T21 NZ	Mann-Whitney U tes	0.1357	
Q21 V Q21 NZ	Mann-Whitney U tes	0.9361	

Figure S4: G (BOTTOM MIDDLE)

Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.1400	
D21 V Q21	Mann-Whitney U tes	0.0000	
D21 CD V T21 CD	Mann-Whitney U tes	0.1394	
D21 CD V Q21 CD	Mann-Whitney U tes	0.0000	
D21 NZ V T21 NZ	Mann-Whitney U tes	0.0895	
D21 NZ V Q21 NZ	Mann-Whitney U tes	0.8859	
D21 V D21 CD	Mann-Whitney U tes	0.0138	
T21 V T21 CD	Mann-Whitney U tes	0.0162	
Q21 V Q21 CD	Mann-Whitney U tes	0.0000	
D21 V D21 NZ	Mann-Whitney U tes	0.0033	
T21 V T21 NZ	Mann-Whitney U tes	0.9198	
Q21 V Q21 NZ	Mann-Whitney U tes	0.0235	

Figure S4: G (BOTTOM RIGHT)

Samples compared	Statistical test	p-value	
D21 V T21	Mann-Whitney U tes	0.0000	
D21 V Q21	Mann-Whitney U tes	0.0000	
D21 CD V T21 CD	Mann-Whitney U tes	0.0000	
D21 CD V Q21 CD	Mann-Whitney U tes	0.0000	
D21 NZ V T21 NZ	Mann-Whitney U tes	0.0000	
D21 NZ V Q21 NZ	Mann-Whitney U tes	0.0000	
D21 V D21 CD	Mann-Whitney U tes	0.0000	
T21 V T21 CD	Mann-Whitney U tes	0.0000	
Q21 V Q21 CD	Mann-Whitney U tes	0.0000	
D21 V D21 NZ	Mann-Whitney U tes	0.0350	
T21 V T21 NZ	Mann-Whitney U tes	0.5878	
Q21 V Q21 NZ	Mann-Whitney U tes	0.0178	