K 21 Zebrafish Project Update
K21 Treatment Effect on weight and length
24th January 2023

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K21 Drug Treatment Effect on Fish Weight and Length

The Wildtype AB Fish were divided in to 2 groups

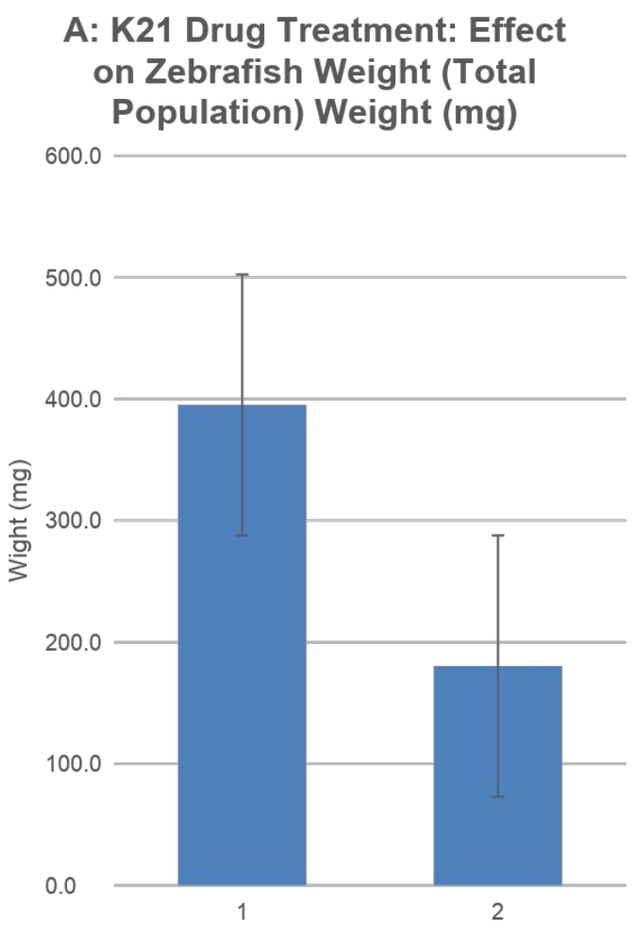
- **21 Drug Treatment Group**
- **Control Group in Fish System Water**
- **To study the K21 Drug Effect of Fish mass the Fishes were measures for weight and length**

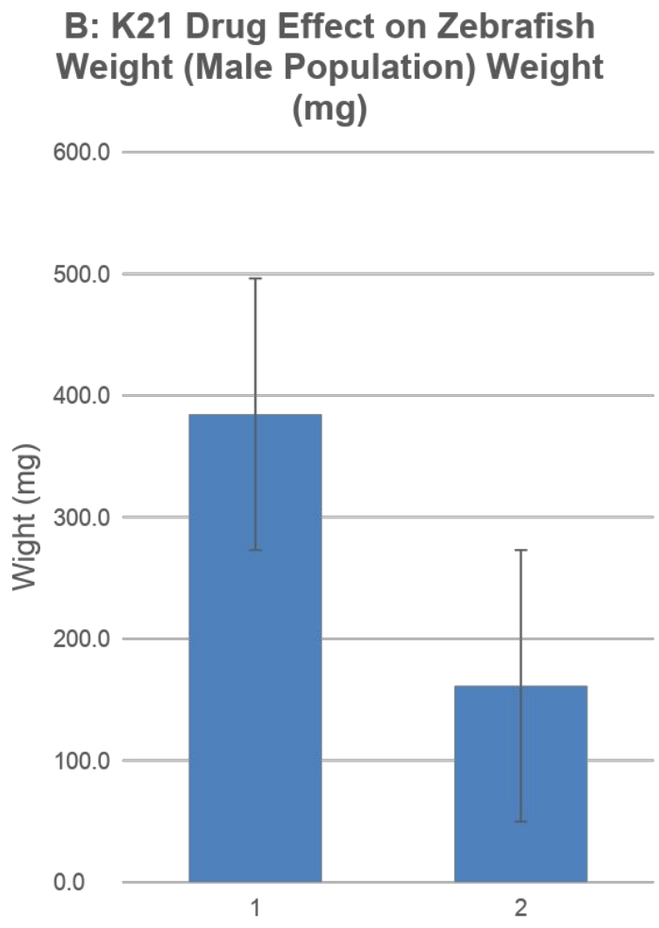
K21 Drug treatment Protocol for Zebrafish

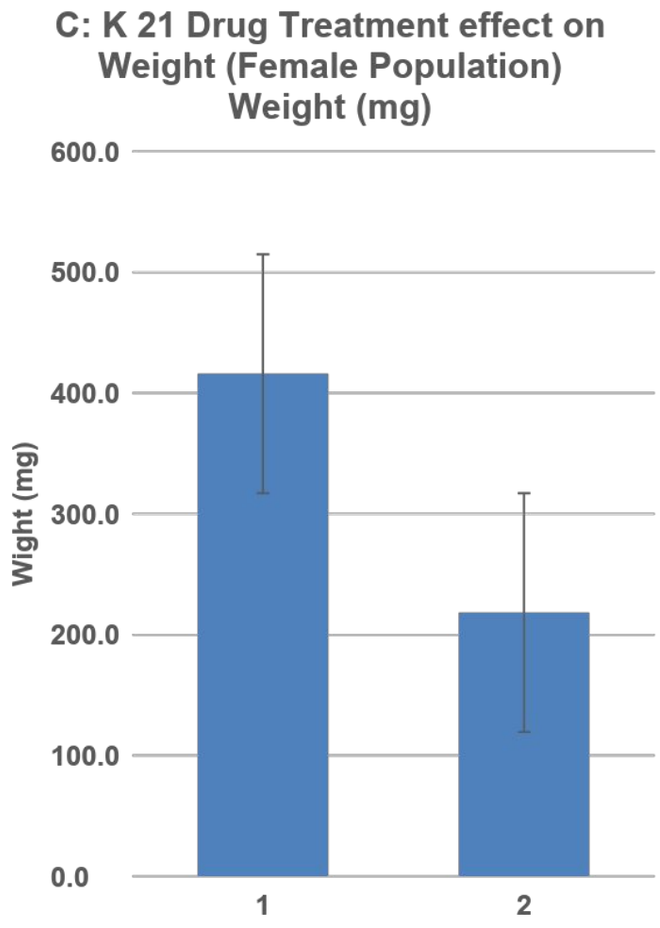
- The wild Type fished were exposed to the K21 Media for 2 weeks
- The male and Female fishes were selected for breeding pair
- Individual Breeding pair kept for breeding by using the K21 Drug media
- The Individual breeders laid the eggs over 100 and allow to Fertilize in K21 System Water
- Embryos Separated by removing the unhatched eggs, debris
- The embryos allows to hatch for 7 days
- The Embryos were subjected to clean by removing debris and on daily basis
- The Embryos keep in Fresh K21 Media on daily basis
- At 72 (HPF) Hour's post Fertilization stage the Embryos hatched into larvae
- The larvae were further allowed to hatched by starting the larval food at 6-day old stage
- The larvae feed up to 15 days old stage and move the Fish Facility System for Further Growth
- The Fish allows to grow to attend the adulthood stage over three month

Result of 21 Drug Treatment Effect on Fish Weight value in mg:
A; Total Population 12Fishes), B; Male Population (08 Fishes) and C Female Population (04 Fishes).
1K21 Treated group, 2-Control Group

K21 Drug Treatment Effect on Fish Weight

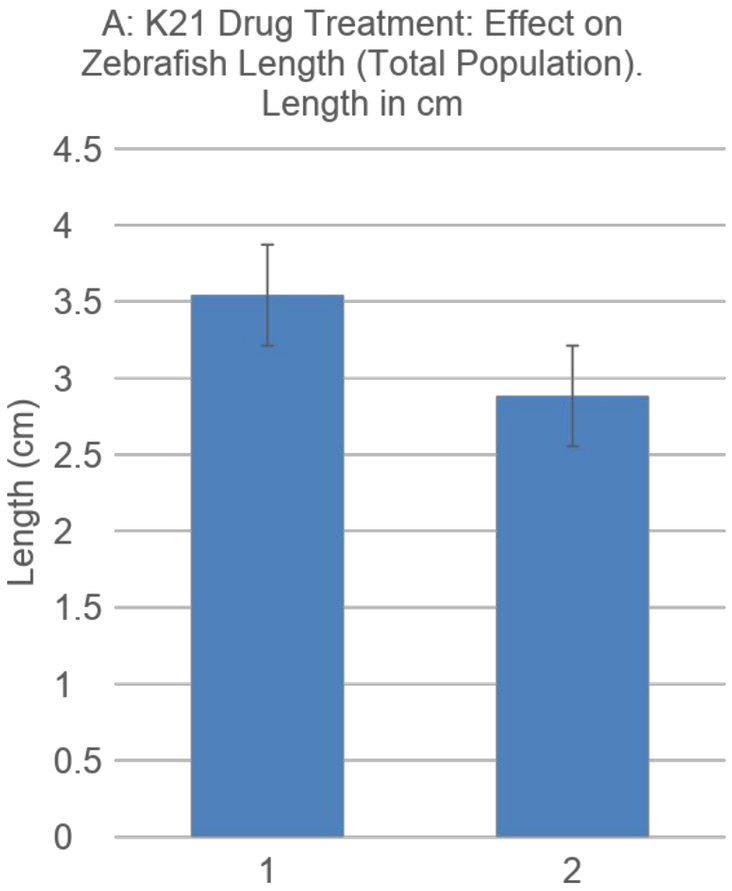


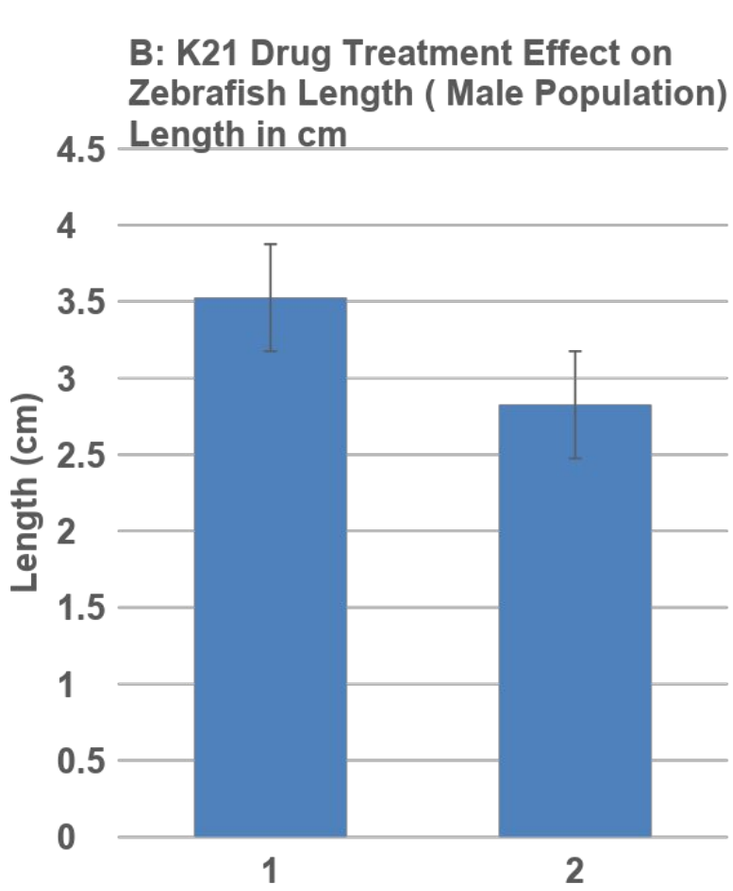


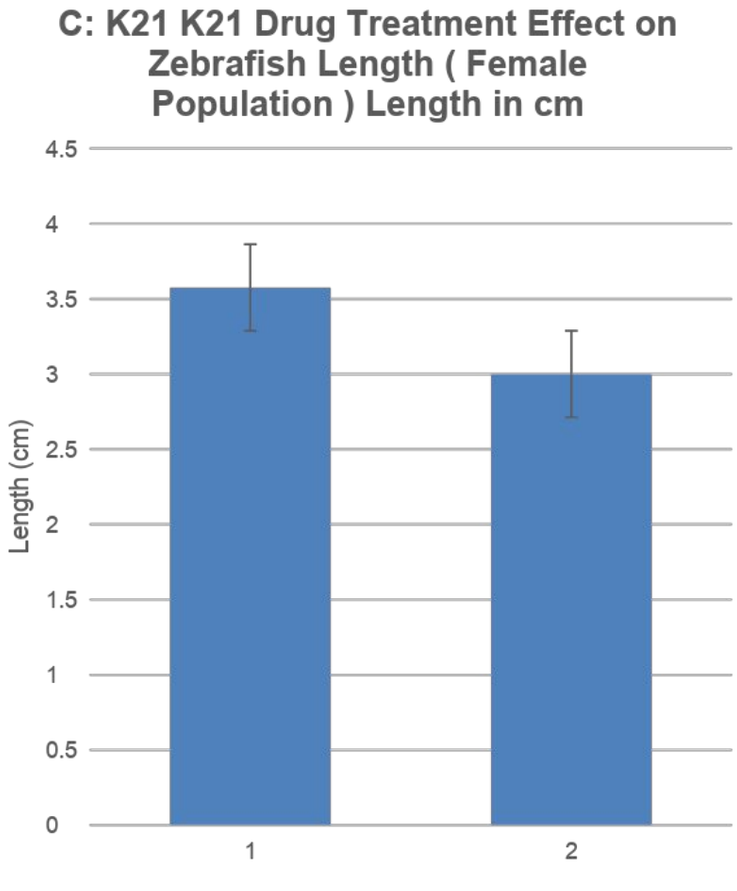


K21 Drug Treatment Effect on Fish Weight value in mg:
A; Total Population 12Fishes), B; Male Population (08 Fishes) and C Female Population (04 Fishes).
1K21 Treated group, 2-Control Group

K21 Drug Treatment Effect on Fish Length

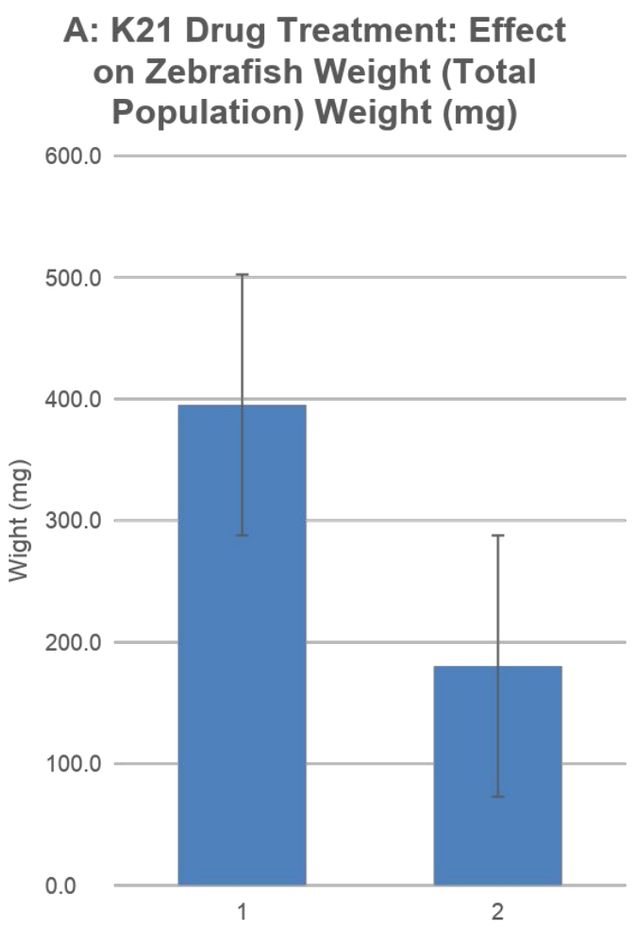


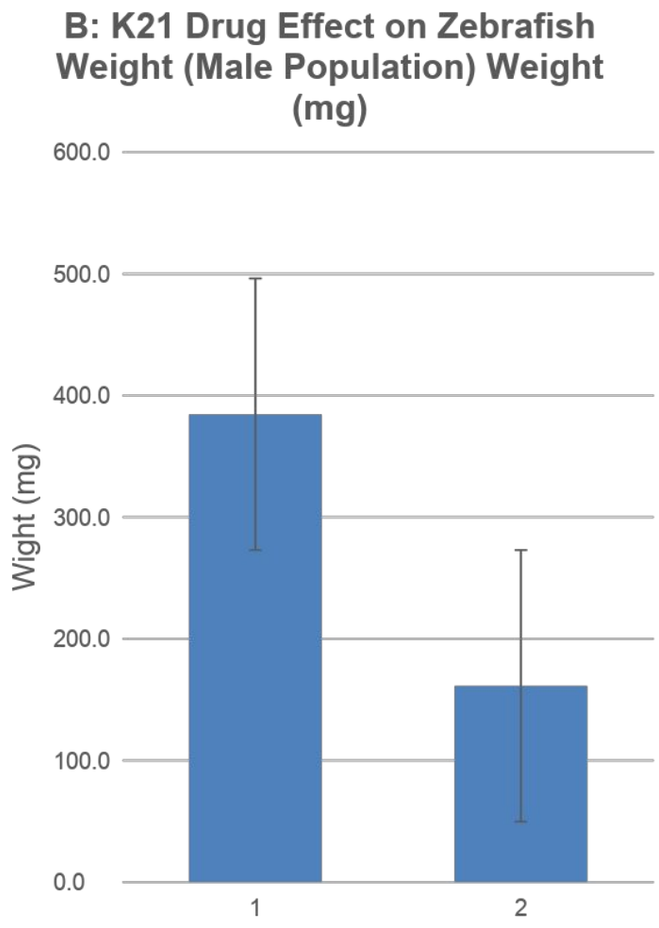


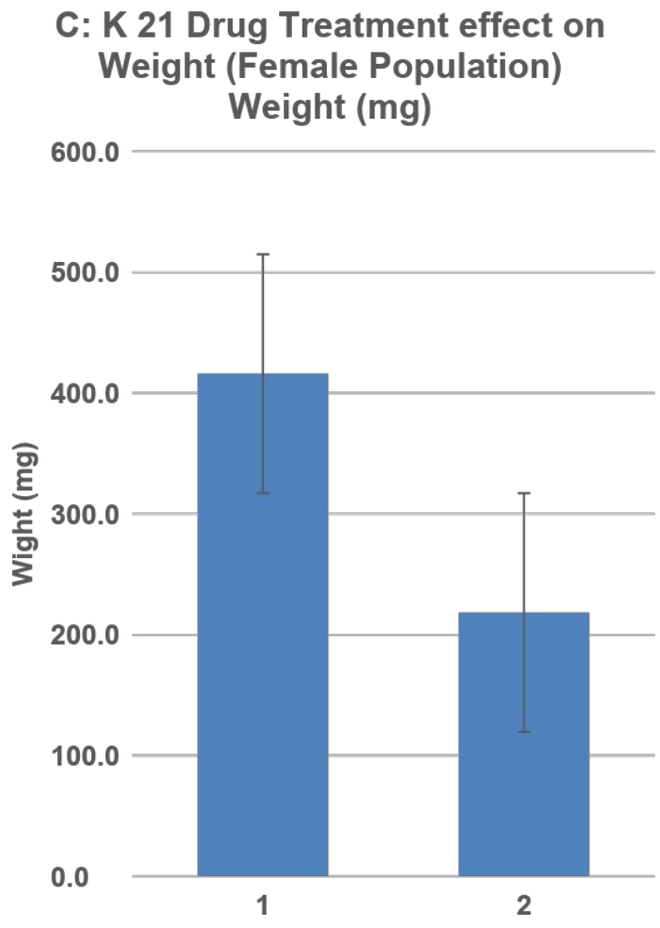


K21 Drug Treatment Effect on Fish Length value in cm:
A; Total Population 12Fishes), B; Male Population (08 Fishes) and C Female Population (04 Fishes).
1K21 Treated group, 2-Control Group

K21 Drug Treatment Effect on Fish Weight







K21 Drug Treatment Effect on Fish Weight value in mg:
A; Total Population 12Fishes), B; Male Population (08 Fishes) and C Female Population (04 Fishes).
1K21 Treated group, 2-Control Group

K21 Drug Treatment Effect on Fish Weight (Total Population)

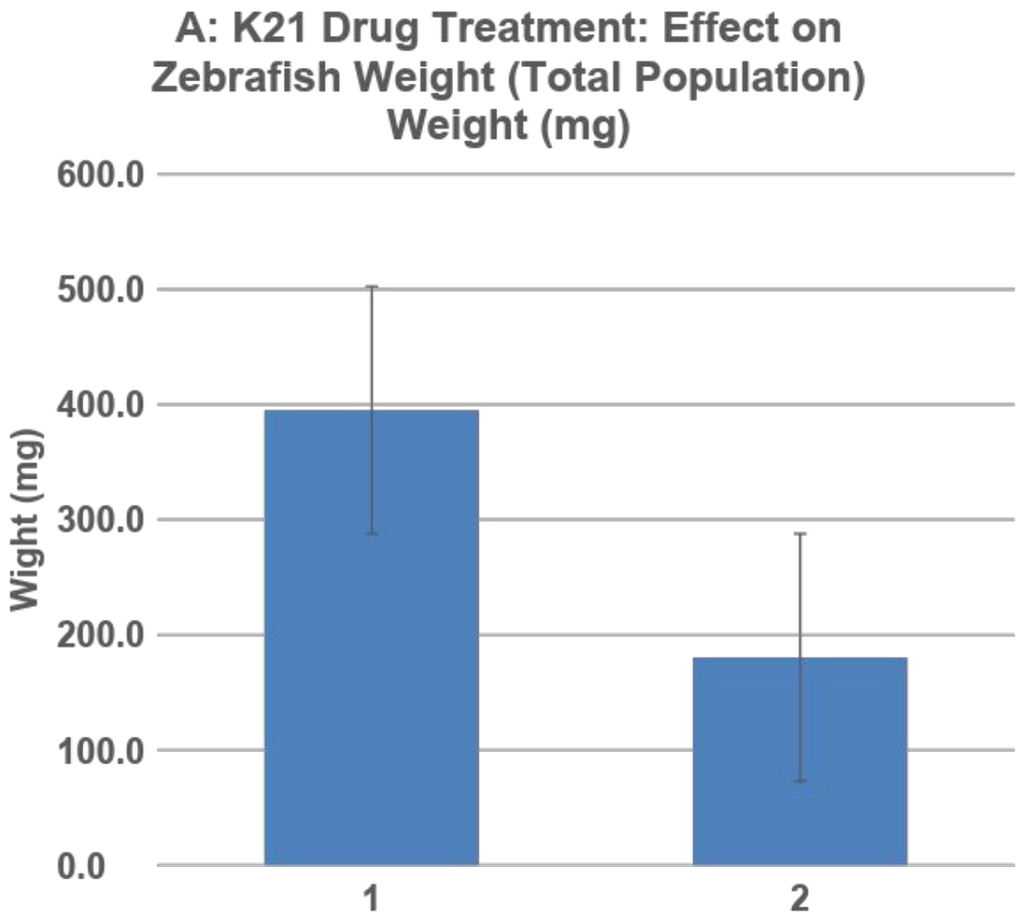


Table-1	Zebrafish Weight	
	Zebrafish Weight (Total Fish Population	
	K21 Treated Group	Control Group
SN:	Fish Weight (mg)	Fish Weight (mg)
M1	410.0	143.0
M2	481.0	239.0
M3	404.0	147.0
M4	413.0	188.0
M5	303.0	91.0
M6	336.0	168.0
M7	458.0	160.0
M8	272.0	155.0
F1	371.0	184.0
F2	488.0	208.0
F3	421.0	236.0
F4	384.0	245.0
Mean	395.1	180.3
SD	63.9	44.0
T-Test	5.6658E-09	

K21 Drug Treatment Effect on Fish Weight in Total Population (12) Fishes):
A; Figure: 1-K21 Treated group, 2-Control Group; Table-1: Fish weight of individual Fish value in mg

K21 Drug Treatment Effect on Fish Weight (Male Population)

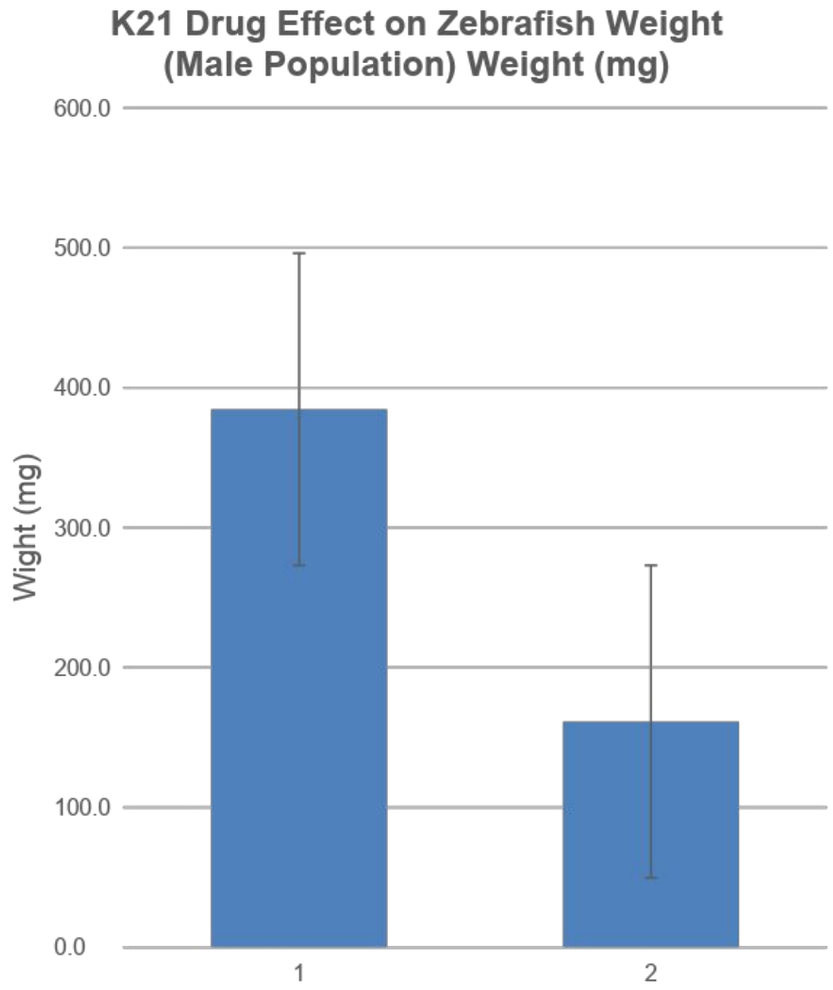
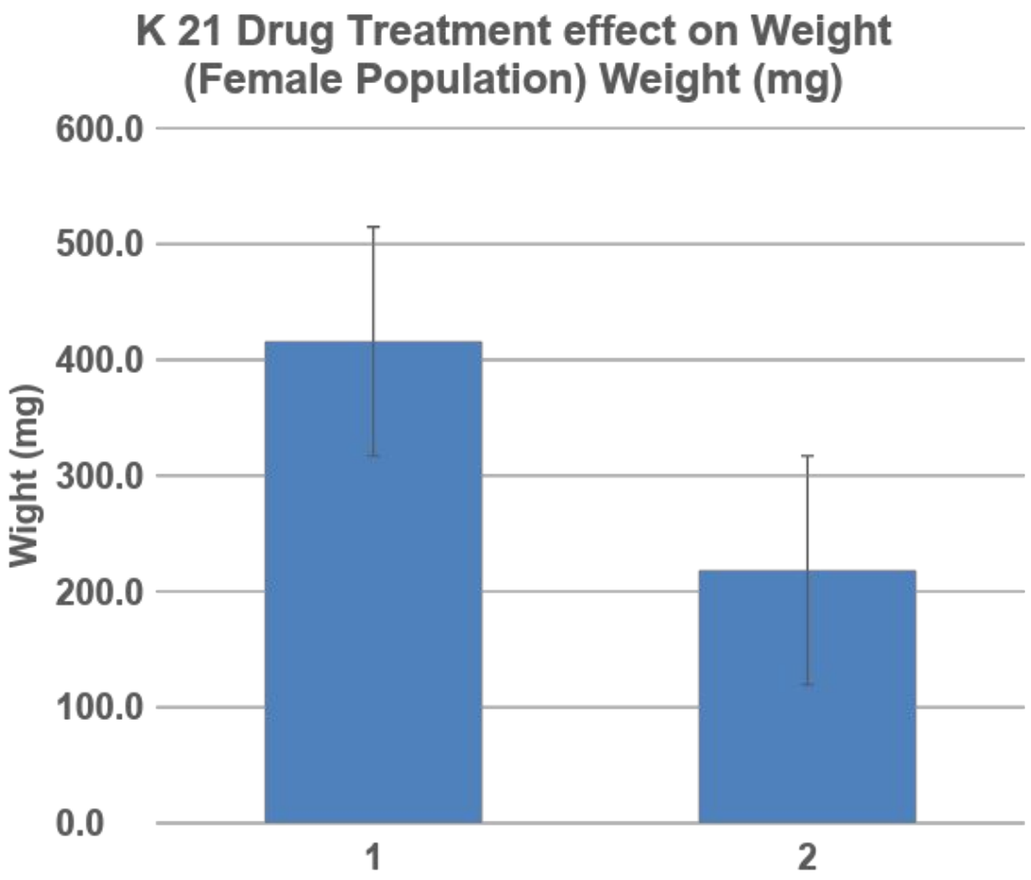


Table	Zebrafish Weight	
	Zebrafish Weight (Male Fish)	
	K21 Treated Group	Control Group
SN:	Fish Weight (mg)	Fish Weight (mg)
M1	410.0	143.0
M2	481.0	239.0
M3	404.0	147.0
M4	413.0	188.0
M5	303.0	91.0
M6	336.0	168.0
M7	458.0	160.0
M8	272.0	155.0
Mean	384.6	161.4
SD	69.1	39.2
T-Test	3.19076E-06	

K21 Drug Treatment Effect on Fish Weight in Male Population (08 Male Fishes):
A; Figure: 1-K21 Treated group, 2-Control Group; Table-: Fish weight of individual Fish value in mg

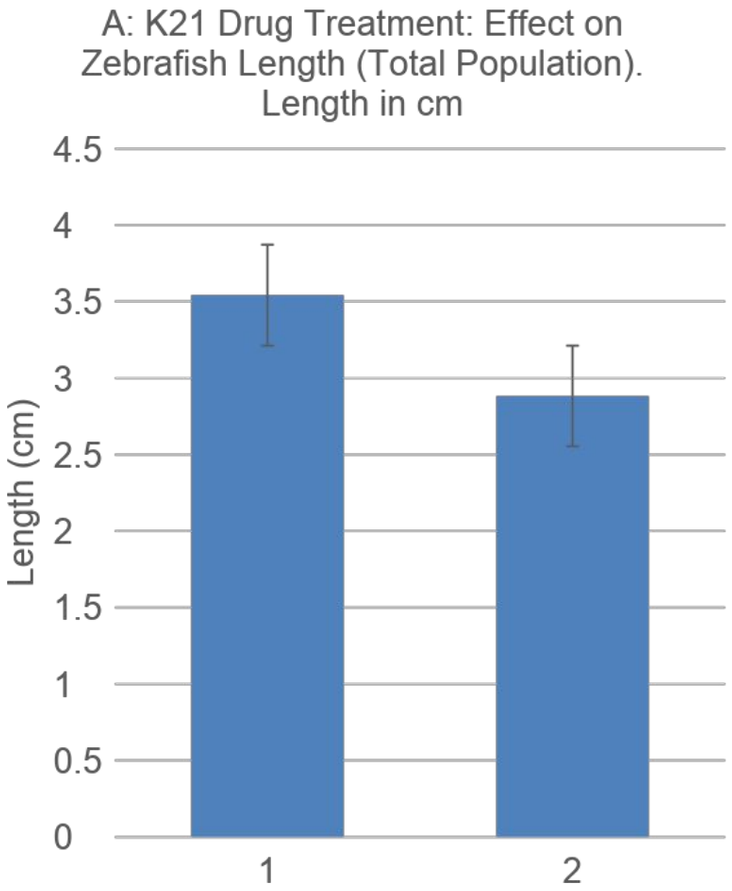
K21 Drug Treatment Effect on Fish Weight (Female Population)

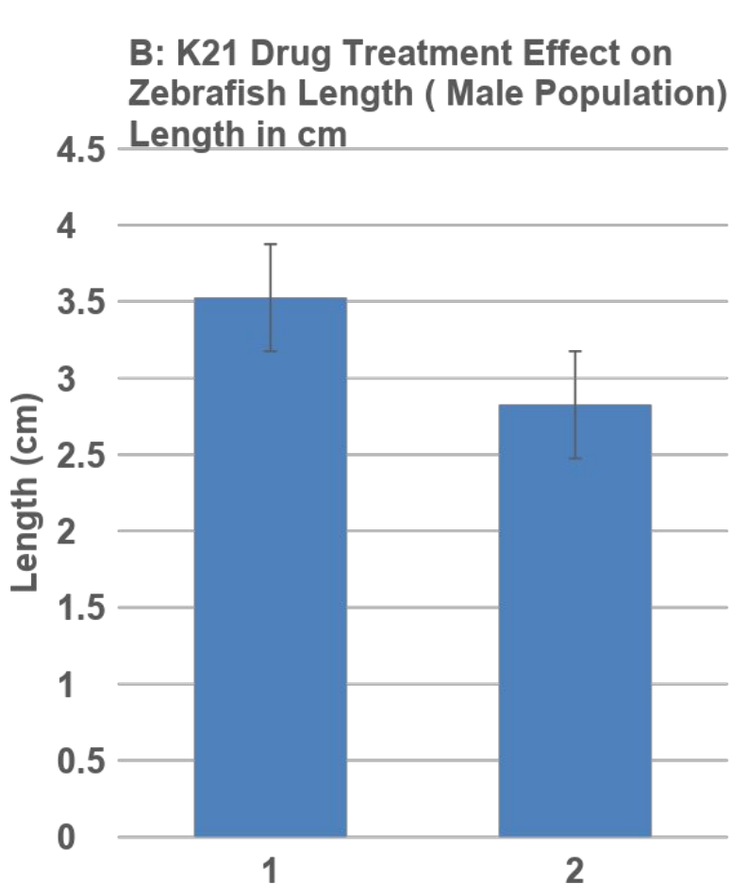


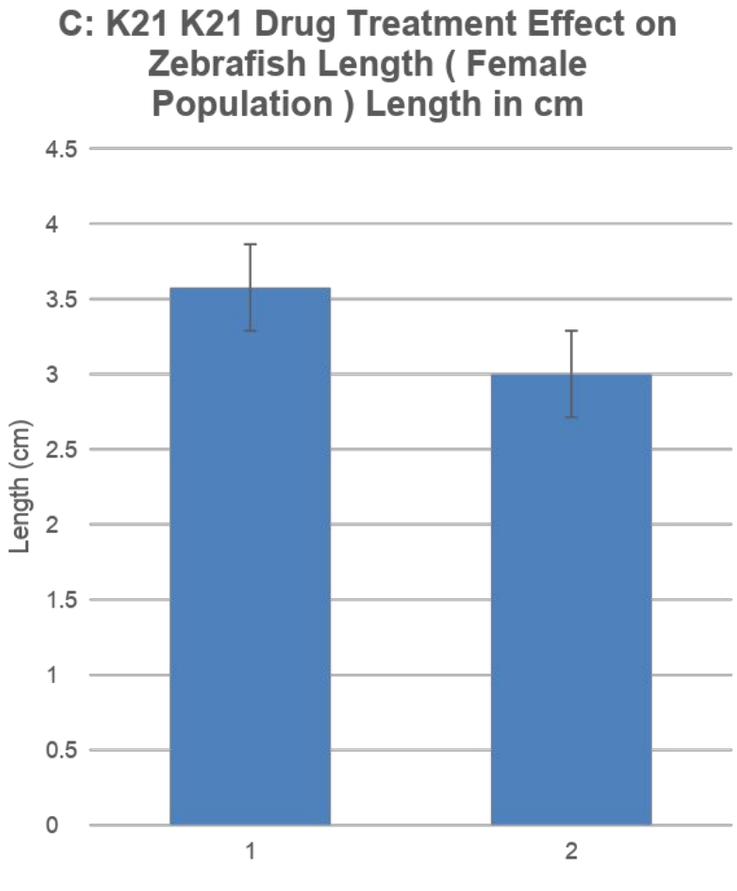
	Zebrafish Weight	
	Zebrafish Weight (Female)	
	K21 Treated Group	Control Group
SN:	Fish Weight (mg)	Fish Weight (mg)
F1	371.0	184.0
F2	488.0	208.0
F3	421.0	236.0
F4	384.0	245.0
Mean	416.0	218.3
SD	45.4	24.0
T-Test	0.000552	

K21 Drug Treatment Effect on Fish Weight in Female Population (04 Female Fishes):
A; Figure: 1-K21 Treated group, 2-Control Group; Table-1: Fish weight of individual Fish value in mg

K21 Drug Treatment Effect on Fish Length







K21 Drug Treatment Effect on Fish Length value in cm:
A; Total Population 12Fishes), B; Male Population (08 Fishes) and C Female Population (04 Fishes).
1K21 Treated group, 2-Control Group

K21 Drug Treatment Effect on Fish Length (Total Population)

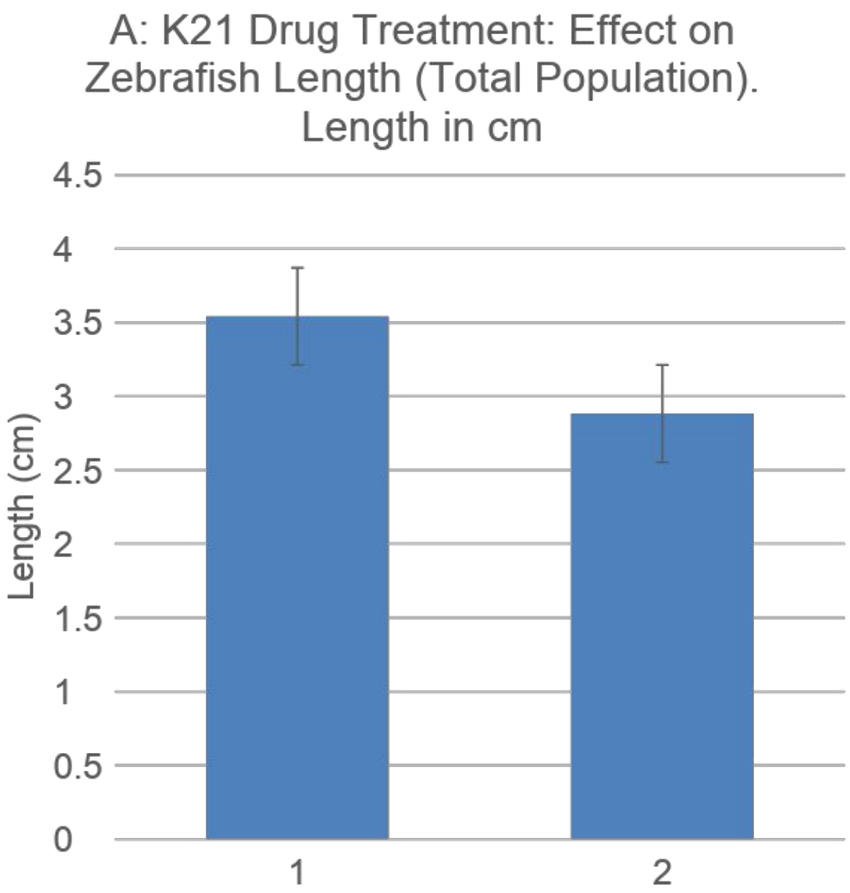
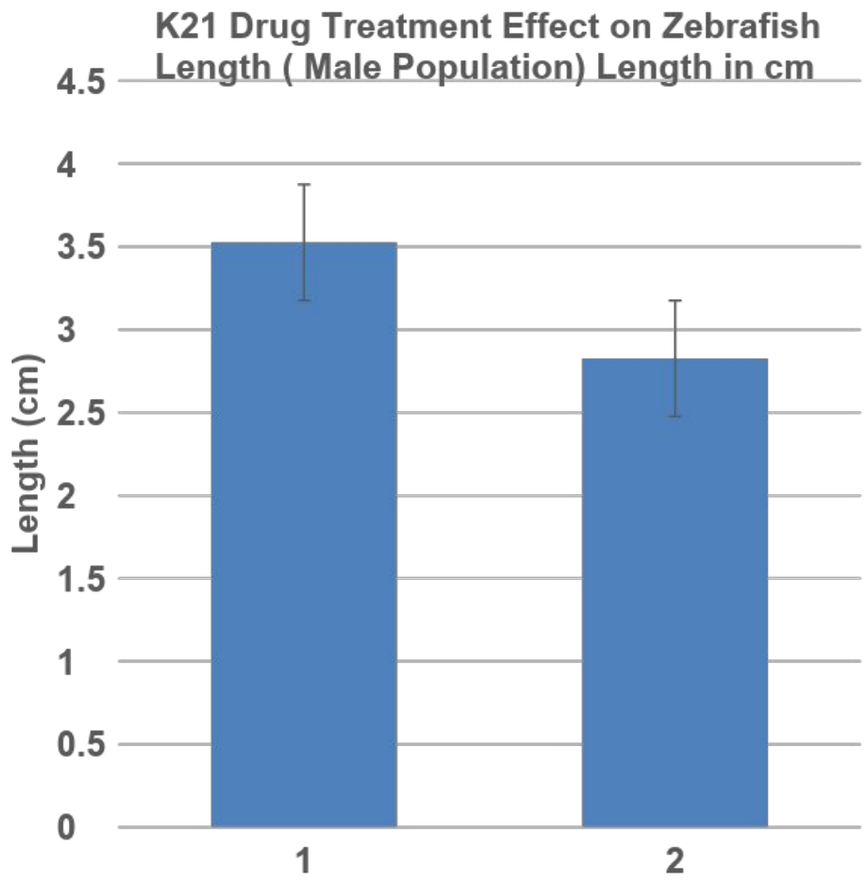


Table	Zebrafish Length	
	K21 Treated Group	Control Group
SN:	Fish Length (cm)	Fish Length (cm)
M1	3.8	2.8
M2	3.7	3.4
M3	3.5	2.6
M4	3.6	3
M5	3.3	2.4
M6	3.4	2.9
M7	3.6	2.7
M8	3.3	2.8
F1	3.3	2.9
F2	3.9	2.9
F3	3.5	3.2
F4	3.6	3
Mean	3.541	2.883
SD	0.1891	0.251
T-Test	5.66781E-07	

K21 Drug Treatment Effect on Fish Length in Total Population (12) Fishes):
A; Figure: 1-K21 Treated group, 2-Control Group; Table-1: Fish Length of individual Fish, value in cm

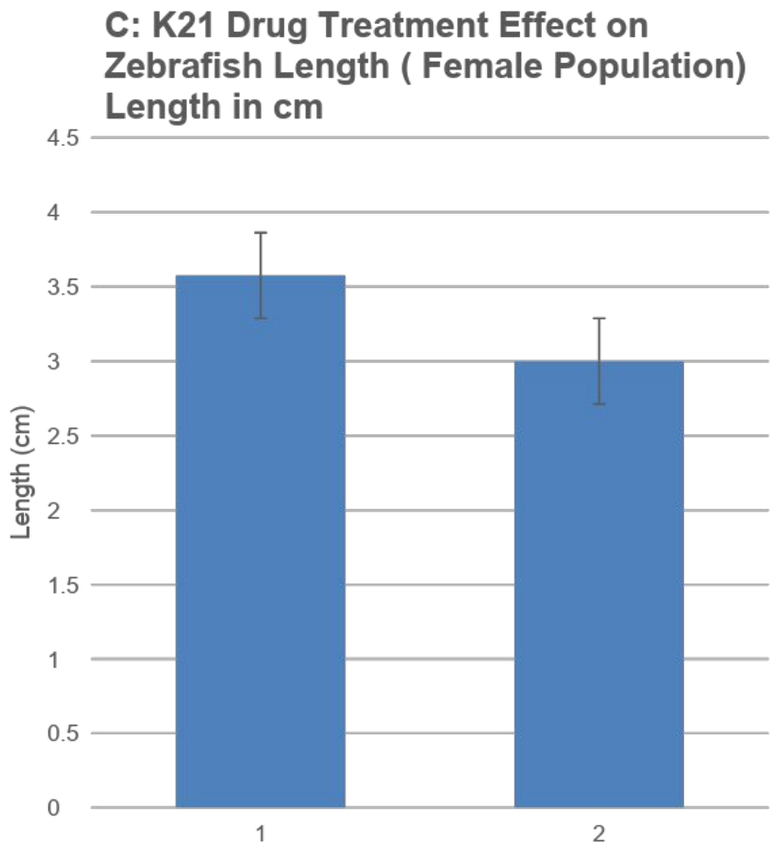
K21 Drug Treatment Effect on Fish Length of Male Population



	Zebrafish Length		
	K21 Treated Group	Control Group	
SN:	Fish Length (cm)	Fish Length (cm)	
M1	3.8	2.8	
M2	3.7	3.4	
M3	3.5	2.6	
M4	3.6	3	
M5	3.3	2.4	
M6	3.4	2.9	
M7	3.6	2.7	
M8	3.3	2.8	
Mean	3.525	2.825	
SD	0.171391	0.277263	
T-Test	5.66E-05		

K21 Drug Treatment Effect on Fish Length in Male Population (08) Fishes):
A; Figure: 1-K21 Treated group, 2-Control Group; Table-1: Fish Length of individual Fish, value in cm

K21 Drug Treatment Effect on Fish Length of Female Population



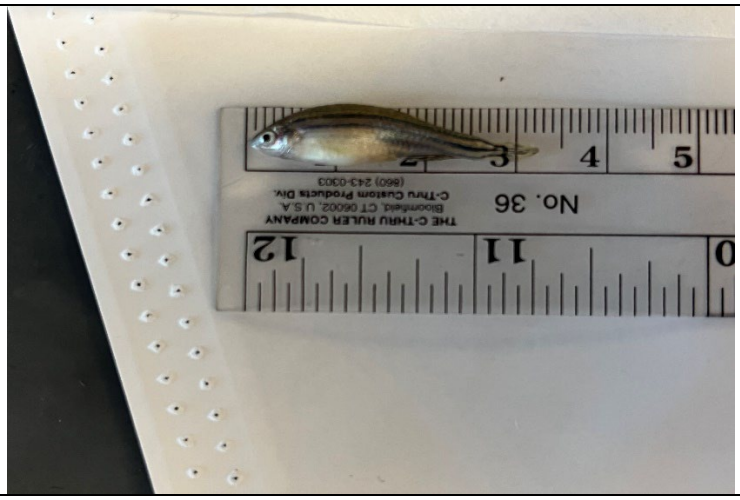
Zebrafish Length	
K21 Treated Group	Control Group
Fish Length (cm)	Fish Length (cm)
F1	3.3	2.9
F2	3.9	2.9
F3	3.5	3.2
F4	3.6	3
Mean	3.575	3
SD	0.216506	0.122474
T-Test	0.007088	

K21 Drug Treatment Effect on Fish Length in Female Population (04) Fishes):
A; Figure: 1-K21 Treated group, 2-Control Group; Table-1: Fish Length of individual Fish, value in cm

M1	
M2	
M3	

M7	
M8	

Table 1.0 K21 Treated Male Data Association

F1	

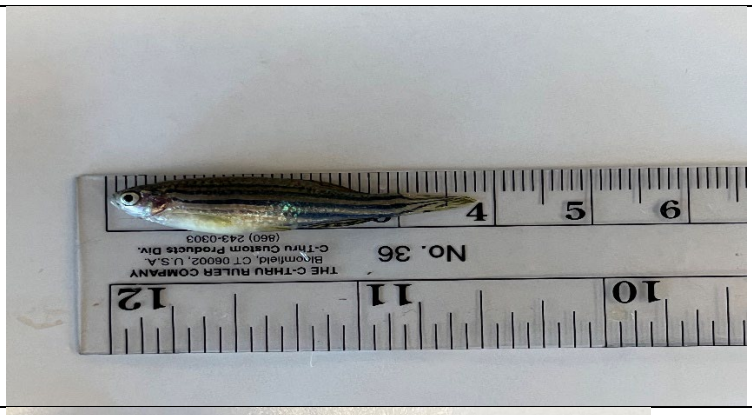
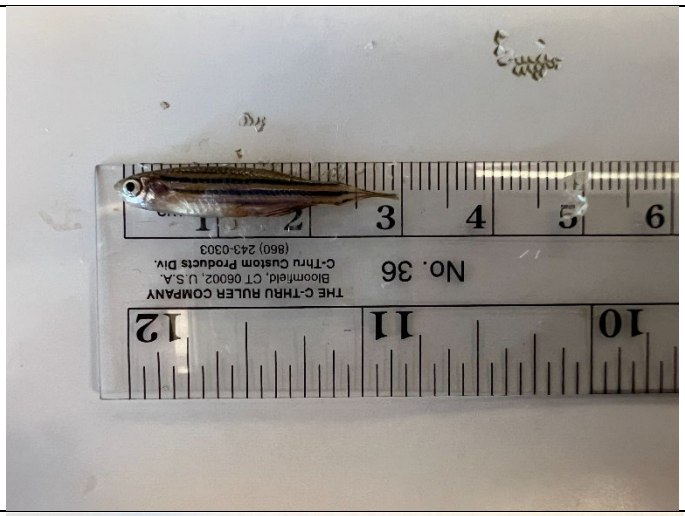
F2	
F3	
F4	

Table 2.0 Treated Female Data Association

WM1	
WM2	
WM3	

WM4	
WM5	
WM6	

WM7	
WM8	

Table 3.0 WT-AB Male Data Association

FW1	
FW2	

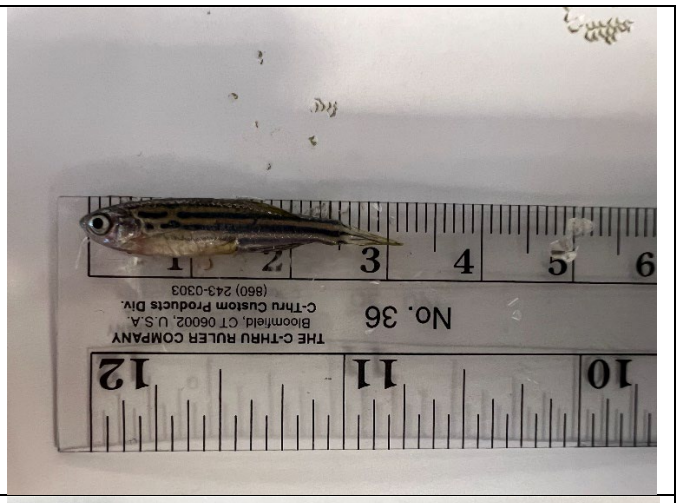
FW3	
FW4	

Figure 4.0 WT-AB Female Data Association