

Garret and Anesha
BIO 350 Lab (Section 004)

9/2/15

Group 9: UAS-CHR2-XXL
X Trh-Gal4

-ATR	Regular light	Soda can	Focused blue
①	50	34	19
②	52	32	17
③	51	33	20

+ATR	Regular light	Soda can	Focused blue
①	45	12	2
②	42	13	1
③	44	11	1

Touch Assay

Head: retract back into body

Abdomen: stops

Tail: rolls

Zach Fortenbery

BIO 350 LAB 7 9/2/15

Natalie Ruggio

004 Group 8

(UAS-CHR2-XXL x Xple-Gal4) Males - +ATR - 14 Flies

Before

After

1: 12 (85.7%)	1: 6 (42.8%)	4: 10 (71.4%)
2: 13 (92.8%)	2: 11 (78.6%)	5: 10 (71.4%)
3: 11 (78.6%)	3: 10 (71.4%)	6: 11 (78.6%)

Female +ATR (UAS-CHR2-XXL) - Control - 16 Flies

Before

After

1: 5 (33.3%)	1: 6 (40%)	4: 9 (60%)
2: 13 (86.6%)	2: 11 (73.3%)	5: 8 (53.3%)
3: 9 (60%)	3: 10 (66.6%)	6: 7 (46.6%)

Female -ATR (UAS-CHR2-XXL) - Control - 9 Flies

Before

After

1: 5 (55.5%)	1: 5 (55.5%)	4: 5 (55.5%)
2: 7 (77.7%)	2: 4 (44.4%)	5: 6 (66.6%)
3: 8 (88.8%)	3: 6 (66.6%)	6: 7 (77.7%)

Female +ATR (UAS-CHR2-XXL)(Xple-Gal4) - 14 Flies

Before

After

1: 7 (50%)	1: 6 (42.8%)	4: 8 (57.1%)
2: 7 (50%)	2: 10 (71.4%)	5: 8 (57.1%)
3: 7 (50%)	3: 7 (50%)	6: 4 (28.6%)

Group- 5

Alex Morris / Fatima Albraikhi

Bio 250/Lab

First step

- ATR ♂

trial 1 ~~1st min~~ trial 2

regular light 1st min → 29 contractions

blue ^{can} light 1st min → 39 contractions

Focused focal blue light . 1st min → 40 contractions.

+ ATR ♂

trial 1

trial 2

regular light | 1st min → 36 contractions

36

Blue ^{can} light | 1st min → 38 contractions

→ blue soda can light → 38

Focused blue light | 1st min → 35 contractions

22

(14) Adult Flies:-

2nd step

male → 371 Gal4 : UAS - chr2

	Blue can light	2nd trial
No light ① 10 sec → 13/14	① 8/14	① 11/14
	② 11/14	② 9/14
② 10 sec → 12/14	③ 13/14	③ 11/14
	④ 13/14	④ 10/14
③ 10 sec → 12/14	⑤ 11/14	⑤ 8/14
④ 10 sec → 11/14		
⑤ 10 sec → 12/14		

Flies

Group - 5

OK371 - Galu, UAS

→ 15 + ATR

<u>No Light 10sec</u>	<u>10sec</u>	<u>10sec</u>	<u>Blue soda light</u>		
① 8/14	} 1st trial	} 2nd trial	10/14	13/14	
② 10/14			10/14	12/14	14/14
③ 7/14			8/14	11/14	10/14
			<u>1st trial</u>	<u>2nd trial</u>	

Bio 350-004

Group 3

Tori Buckley
Cameron Colvard

-ATR

Trial 1:

minute 1: 0 rolls

minute 2: 0 rolls

Trial 2:

minute 1: 0 rolls

minute 2: 0 rolls

Trial 3:

minute 1: 0 rolls

minute 2: 0 rolls

Trial 4

minute 1: 0 rolls

minute 2: 0 rolls

larvae were constantly moving around the plate; they seemed to move to edge of plate

+ATR

Trial 1

minute 1: 15 rolls

~~minute 2: 3 rolls~~

Trial 2

minute 1: 8 rolls

~~minute 2: 1 rolls~~

Trial 3

minute 1: 8

minute 2: 2

Trial 4

minute 1: 6

minute 2: 2

Trial 5

Trial 6 : 3

Trial 7 : 4

with high intensity white light had to stay covered for a while for white light to be effective

+ATR

w/out blue light

Trial 1: 9 flies after 10 seconds

Trial 2: 10 flies after 10 seconds

Trial 3: 7 flies after 10 seconds

w/ blue light

Trial 1: 8 flies after 10 seconds

Trial 2: 7 flies after 10 seconds

Trial 3:

w/out blue light

Trial 1: 8 flies after 10 seconds

Trial 2: 6 flies after 10 seconds

Trial 3: 11 flies after 10 seconds

Trial 4: 7 flies after 10 seconds

Trial 5: 9 flies after 10 seconds

Trial 6: 10 flies after 10 seconds

May have lost effect as adults.
lots of changes from larvae to adults may
have lost the gene as an adult.

Group 6

Section 4

Chase Jackson; Kam Farley

UAS-ChR2H134R-mcherry
x Trh-Gal4 (serotonergic neurons)

- ATR on apple-juice agar plate

	dim light	blue light	focused
1.	36	23	20
2.	29	41	17
3.	28	23	19

- +ATR

	dim light	blue light	focused
1.	25	29	16
2.	30	32	19
3.	33	19	17

- ATR ♂

before	12 total
1. 10	blue light for 15
2. 11	1. 11
3. 10	2. 11
	3. 10
	4. 8
	5. 12
	6. 11

- +ATR ♂

before	13 total
1. 11	blue light

-ATR or 10 total

before

1. 7

2. 7

3. 8

blue light

1. 8

2. 9

3. 8

4. 10

5. 9

6. 8

+ATR or 13 total

before

1. 11

2. 11

3. 12

blue light

1. 10

2. 11

3. 12

4. 12

5. 11

6. 10

Relative geotaxic assay

Group 4

Tyler DeLong
Angel HD
BIO 350
-004

- dim light

Trial	# ATR n=5
1	41
2	22
3	34

+ dim light

Trial	Body contractions
1	15 15
2	36
3	32

- Regular

Trial	ATR n=5
1	27
2	19
3	23

+ regular light

Trial	Body Contractions
1	5 7
2	8
3	8

- Blue

Trial	ATR n=5
1	31
2	12
3	25

+ Blue light

Trial	Body contraction
1	13 13
2	17
3	16

~~Trial 1~~ Without light 15 ♀
 WAS-CHR2-XxC - ATR
 x Trh-Gala } after 10 seconds Female

Total 15	Without light	
	Trial 1	→ 12 crossed
	Trial 2	→ 11 crossed
	Trial 3	→ 12 crossed
	With light	
	Trial 1	→ 11 crossed
Trial 2	→ 10 crossed	
Trial 3	→ 9 crossed	

WAS-CHR2-XXL x Trh-Gala 4 - ATR 15 ♂ → Male

Total in vial = 12	Without light		With light	
	Trial 1	→ 12 crossed	Trail 1	→ 12
	Trial 2	→ 10 crossed	Trail 2	→ 12
	Trial 3	→ 12 crossed	Trail 3	→ 8

+ ATR 15 ♀

Total in vial = 8	Without light		With	
	Trail 1	→ 11 8	Trail 1	→ 1
	Trail 2	→ 7	Trail 2	→ 2
	Trail 3	→ 4	Trail 3	→ 6

+ ATR 15 ♂

15 total	w/o		w/	
	Trail 1	→ 15 crossed	Trail 1	→ 15 crossed
	Trail 2	→ 15 crossed	Trail 2	→ 14 crossed
	Trail 3	→ 15 crossed	Trail 3	→ 16 crossed

2 sept 2015 - Grap 7

Connor Sears + Julianne Horn

UAS-ChR2-XXL x ple-Gal 4

	<u>reg light</u>	<u>blue focused</u>	<u>blue scattered</u>
Larvae 1	42	8	24
2	14	15	16

	<u>head touch</u>	<u>abdomen</u>	<u>tail</u>
Larvae 1	C shape	C shape	no response
2	backward	left turn	pause

UAS-ChR2-XXL plus ATR

	<u>reg light</u>	abdomen	<u>blue focused</u>	<u>blue scattered</u>
Larvae 1	30		48	35
2	25		16	0
3	29		31	36
4	28		23	29

	<u>head</u>	<u>abdomen</u>	<u>tail</u>
Larvae 1	C	tail flip	C
2	-		-
3	C	pause	tail flip
4	C	C	tail flip

UAS-ChR2-XXL minus ATR

	<u>reg light</u>	<u>blue focused</u>	<u>blue scattered</u>
Larvae 1	38	39	43
2	16	25	30

	<u>head</u>	<u>abdomen</u>	<u>tail</u>
Larvae 1	tail flip	pause	tail flip
2	C	pause	C

UAS-ChR2-XXL x ple-Gal 4

	<u>dim light</u>	<u>reg light</u>
1	12	24
2	6	26
3	2	14