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LAMPIRAN

Lampiran 1. Dokumentasi penelitian

Pengambilan induk *O. javanicus*

Pembuatan mikroplastik dari masker

PemeliharaanIkan *O. javanicus*

Ikan *O. javanicus* yang bertelur

Pengamatan embrio *O. javanicus*

Lampiran 2. Data dan hasil analisis statistik jumlah somit

Media	Fase 19	Fase 20	Fase 21
A1	3	6	11
A2	4	7	9
A3	5	8	10
A4	4	7	10
A5	4	7	10
A6	4	8	9
A7	4	8	9
A8	4	7	10
A9	4	6	11
A10	4	7	10
B1	4	7	8
B2	4	8	11
B3	4	6	12
B4	3	8	10
B5	5	8	12
B6	5	7	10
B7	5	6	11
B8	5	8	10
B9	5	6	11
B10	5	6	11

Media	Fase 19	Fase 20	Fase 21
C1	4	7	13
C2	4	7	10
C3	5	8	12
C4	4	7	12
C5	5	7	12
C6	4	8	10
C7	5	8	11
C8	5	7	11
C9	5	6	10
C10	4	6	11
D1	3	7	10
D2	4	8	9
D3	4	7	12
D4	4	8	12
D5	5	5	10
D6	4	8	9
D7	4	7	10
D8	5	7	9
D9	5	7	12
D10	4	6	9

Media	Fase 19	Fase 20	Fase 21
E1	4	7	10
E2	4	7	12
E3	4	8	9
E4	4	7	10
E5	4	7	12
E6	5	8	11
E7	4	8	10
E8	4	7	11
E9	3	7	10
E10	4	8	9

Keterangan
A : ERM
B : DMSO
C : Triclosan (TCS)
D : Mikroplastik polypropyelen (MP)
E : TCS + MPS

Kruskal-Wallis test	
P value	0,9783
Exact or approximate P value?	Exact
P value summary	ns
Do the medians vary signif. (P < 0.05)?	No
Number of groups	5
Kruskal-Wallis statistic	0,5456

Lampiran 3. Data dan hasil analisis statistik detak jantung dan ukuran jantung

1. Detak jantung

ERM	1	2	3	4	5	6	7	8	9	10
24	58	55	64	40	46	50	60	51	50	42
25	120	138	113	138	106	113	129	138	113	138
26	86	120	129	86	78	129	138	82	129	138
27	120	100	129	120	106	100	100	113	106	106
28	113	113	120	129	113	120	113	129	120	120
29	164	120	120	129	164	164	120	150	138	120
30	120	120	129	150	150	106	106	150	120	150
31	138	129	138	138	138	129	129	129	120	138
32	138	129	129	129	129	129	129	129	138	129
33	164	150	150	138	138	129	150	138	150	164
34	150	150	150	150	138	150	150	164	138	138
35	164	164	129	138	150	180	150	164	164	138
36	164	164	164	180	150	150	180	180	164	180
37	164	180	180	164	164	180	150	180	150	180

DMSO	1	2	3	4	5	6	7	8	9	10
24	69	72	58	75	55	75	72	69	75	67
25	120	120	150	180	129	138	138	164	150	150
26	90	100	138	129	129	86	113	120	129	129
27	113	106	106	106	113	113	106	120	113	106
28	138	120	113	120	106	120	120	120	120	120
29	129	129	113	138	120	164	120	150	138	138
30	150	106	164	120	129	120	129	113	113	138
31	138	113	113	100	120	150	138	138	150	150
32	138	129	120	120	129	120	138	138	129	129
33	164	138	120	129	138	138	129	138	150	138
34	150	138	129	150	150	138	150	138	150	150
35	164	138	164	164	180	164	150	120	164	164
36	164	164	150	164	180	150	150	150	164	164
37	200	164	164	164	164	150	164	180	150	180

TCS	1	2	3	4	5	6	7	8	9	10
24	106	95	90	90	100	106	95	90	113	113
25	129	120	113	129	138	129	120	113	129	138
26	138	138	138	138	150	138	129	129	129	150
27	90	86	95	86	90	95	95	86	82	100
28	120	120	120	106	106	106	120	113	100	120
29	113	129	120	113	113	120	120	120	113	120
30	113	129	120	113	113	113	120	120	138	120
31	129	138	120	120	113	129	113	120	106	164
32	120	129	138	129	120	120	120	129	120	120
33	138	129	138	129	129	129	120	138	138	129
34	164	164	164	150	164	164	150	200	180	180
35	138	138	150	129	150	138	129	129	150	138
36	164	129	164	138	150	150	138	138	129	138
37	164	129	164	150	150	129	129	150	138	138

MP	1	2	3	4	5	6	7	8	9	10
24	58	56	62	67	64	69	60	86	69	67
25	82	78	86	90	90	86	90	95	90	90
26	113	120	100	113	113	113	113	113	113	113
27	113	113	120	106	113	120	120	106	120	106
28	113	106	106	120	113	120	106	113	120	113
29	113	129	120	113	113	120	113	120	113	120
30	100	138	120	138	113	113	106	113	120	120
31	113	129	138	129	138	129	106	120	129	113
32	164	150	138	129	129	150	138	138	129	138
33	164	164	138	138	150	129	138	150	150	150
34	150	164	150	150	138	150	150	164	150	150
35	164	164	129	138	150	180	150	164	164	138
36	180	180	200	164	200	164	180	180	180	164
37	180	180	150	180	164	150	180	164	200	180

MP + TCS	1	2	3	4	5	6	7	8	9	10
24	36	42	39	38	36	31	45	38	40	38
25	55	55	60	62	50	49	62	55	56	56
26	60	62	64	67	69	62	67	69	69	67
27	75	95	100	106	95	95	95	100	106	100
28	113	120	113	113	120	120	120	120	120	106
29	120	106	120	120	106	95	106	106	106	120
30	129	90	138	180	113	113	138	113	180	138
31	129	113	138	129	113	138	129	129	120	138
32	120	120	150	138	180	120	129	120	200	180
33	138	120	138	138	138	129	120	129	129	138
34	129	129	150	138	138	138	129	138	138	150
35	138	138	150	150	150	138	138	150	180	164
36	138	138	150	150	150	138	120	150	150	164
37	129	138	164	150	138	138	150	138	150	150

Stadia 24

Kruskal-Wallis test	
P value	<0,0001
Exact or approximate P value?	Approximate
P value summary	****
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	5
Kruskal-Wallis statistic	42,84

Dunn's multiple comparisons test	Mean rank diff,	Significant?
ERM vs. DMSO	-15,20	No
ERM vs. TCS	-28,95	Yes
ERM vs. MP	-11,25	No
ERM vs. MP + TCS	10,65	No

Stadia 25

Kruskal-Wallis test	
P value	<0,0001
Exact or approximate P value?	Approximate
P value summary	****

Do the medians vary signif. (P < 0.05)?	Yes	
Number of groups	5	
Kruskal-Wallis statistic	39,15	

Dunn's multiple comparisons test	Mean rank diff,	Significant?
ERM vs. DMSO	-7,200	No
ERM vs. TCS	-23,45	Yes
ERM vs. MP	-3,550	No
ERM vs. MP + TCS	16,45	Yes

Stadia 26

Kruskal-Wallis test	
P value	<0,0001
Exact or approximate P value?	Approximate
P value summary	****
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	5
Kruskal-Wallis statistic	34,48

Dunn's multiple comparisons test	Mean rank diff,	Significant?
ERM vs. DMSO	-1,050	No
ERM vs. TCS	-15,25	No
ERM vs. MP	4,500	No
ERM vs. MP + TCS	22,05	Yes

Stadia 27

Kruskal-Wallis test	
P value	<0,0001
Exact or approximate P value?	Approximate
P value summary	****
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	5
Kruskal-Wallis statistic	33,52

Dunn's multiple comparisons test	Mean rank diff,	Significant?
ERM vs. DMSO	-2,150	No
ERM vs. TCS	24,05	Yes
ERM vs. MP	-6,500	No
ERM vs. MP + TCS	16,35	Yes

Stadia 29

Kruskal-Wallis test	
P value	<0,0001
Exact or approximate P value?	Approximate
P value summary	****
Do the medians vary signif. (P < 0.05)?	Yes

Number of groups	5
Kruskal-Wallis statistic	23,88

Dunn's multiple comparisons test	Mean rank diff,	Significant?
ERM vs. DMSO	1,450	No
ERM vs. TCS	16,15	No
ERM vs. MP	17,60	No
ERM vs. MP + TCS	25,05	Yes

Stadia 33

Kruskal-Wallis test	
P value	0,0014
Exact or approximate P value?	Approximate
P value summary	**
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	5
Kruskal-Wallis statistic	17,68

Dunn's multiple comparisons test	Mean rank diff,	Significant?
ERM vs. DMSO	10,50	No
ERM vs. TCS	18,90	Yes
ERM vs. MP	0,000	No
ERM vs. MP + TCS	18,10	Yes

Stadia 34

Kruskal-Wallis test	
P value	<0,0001
Exact or approximate P value?	Approximate
P value summary	****
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	5
Kruskal-Wallis statistic	27,21

Dunn's multiple comparisons test	Mean rank diff,	Significant?
ERM vs. DMSO	4,100	No
ERM vs. TCS	-17,75	Yes
ERM vs. MP	-5,050	No
ERM vs. MP + TCS	12,70	No

Stadia 36

Kruskal-Wallis test	
P value	<0,0001
Exact or approximate P value?	Approximate
P value summary	****
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	5
Kruskal-Wallis statistic	29,63

Dunn's multiple comparisons test	Mean rank diff,	Significant?
ERM vs. DMSO	6,550	No
ERM vs. TCS	20,30	Yes
ERM vs. MP	-7,750	No
ERM vs. MP+TCS	19,40	Yes

Stadia 37

Kruskal-Wallis test	
P value	<0,0001
Exact or approximate P value?	Approximate
P value summary	****
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	5
Kruskal-Wallis statistic	25,36

Dunn's multiple comparisons test	Mean rank diff,	Significant?
ERM vs. DMSO	1,800	No
ERM vs. TCS	20,30	Yes
ERM vs. MP	-1,950	No
ERM vs. MP+TCS	20,60	Yes

2. Ukuran jantung

ERM	DMSO	TCS	MP	MP + TCS
0,0310284	0,0857	0,0566037	0,0433372	0,0405269
0,0566037	0,0577	0,0318396	0,0502609	0,0369264
0,0369264	0,0503	0,0566037	0,0502609	0,0656469
0,0271296	0,0656	0,0830844	0,0576975	0,04239
0,0502609	0,0656	0,07536	0,0369264	0,0716391
0,0482304	0,0656	0,07536	0,0566037	0,0566037
0,0502609	0,0433	0,0482304	0,0656469	0,0221108
0,0830844	0,0566	0,0369264	0,0369264	0,102573
0,11775	0,0656	0,0656469	0,0830844	0,0716391
0,07536	0,0503	0,0576975	0,0502609	0,0566037

Kruskal-Wallis test	
P value	0,7470
Exact or approximate P value?	Approximate
P value summary	ns
Do the medians vary signif. (P < 0.05)?	No
Number of groups	5
Kruskal-Wallis statistic	1,939

Lampiran 4. Data dan hasil analisis statistik laju penyarapan kuning telur

ERM	DMSO	TCS	MP	MP+TCS
0,0016	0,0013	0,0016	0,0018	0,0015
0,0017	0,002	0,0015	0,0017	0,0013
0,0017	0,0018	0,0017	0,0022	0,0016
0,0016	0,0019	0,0017	0,002	0,0021
0,0026	0,0021	0,0022	0,0017	0,0014
0,002	0,0014	0,0017	0,0024	0,0011
0,0018	0,0019	0,0018	0,0015	0,0015
0,0014	0,0017	0,0019	0,0019	0,002
0,0017	0,0019	0,0013	0,0019	0,0014
0,0028	0,0019	0,0014	0,0019	0,0018

Kruskal-Wallis test	
P value	0,1201
Exact or approximate P value?	Approximate
P value summary	ns
Do the medians vary signif. (P < 0.05)?	No
Number of groups	5
Kruskal-Wallis statistic	7,315

Lampiran 5. Data dan hasil analisis statistik waktu penetasan dan *Hatching time*$_{50}$

ERM	DMSO	TCS	MP	MP + TCS
11	12	12	10	-
11	36	22	-	30
30	38	12	9	37
33	11	41	10	38
11	12	17	9	-
25	38	20	10	40
12	25	-	22	31
11	36	-	21	29
11	31	41	9	20
13	12	41	10	-

Kruskal-Wallis test	
P value	0,0006
Exact or approximate P value?	Approximate
P value summary	***
Do the medians vary signif. (P < 0.05)?	Yes
Number of groups	5
Kruskal-Wallis statistic	19,72

Dunn's multiple comparisons test	Mean rank diff,	Significant?
ERM vs. DMSO	-8,800	No
ERM vs. TCS	-10,78	No
ERM vs. MP	9,489	No
ERM vs. MP + TCS	-14,97	No

DMSO vs. TCS	-1,975	No
DMSO vs. MP	18,29	Yes
DMSO vs. MP + TCS	-6,171	No
TCS vs. MP	20,26	Yes
TCS vs. MP + TCS	-4,196	No
MP vs. MP + TCS	-24,46	Yes

Survival Data summary	A ERM	B DMSO	C TCS	D MP	E MP+TCS
1 Number of rows	59	59	59	59	59
2 # of blank lines	39	39	41	40	42
3 # rows with impossible data	0	0	0	0	0
4 # censored subjects	10	10	10	10	10
5 # deaths/events	10	10	8	9	7
6					
7 Median survival	11.5	28	21	10	31

Lampiran 6. Data dan hasil analisis statistik panjang larva awal menetas

ERM	DMSO	TCS	MP	MP+TCS
5,01	4,96	5	4,91	-
5,02	4,84	4,43	-	4,75
5,12	4,96	5,14	4,41	4,55
4,66	4,99	4,38	4,81	4,46
4,17	4,81	5,05	4,23	-
4,81	5,03	5,22	4,68	4,5
5,08	4,44	-	4,7	4,85
4,91	4,2	-	4,62	4,62
5,25	4,81	4,77	4,21	4,39
5,26	5,01	4,74	4,78	-

Kruskal-Wallis test			
P value			0,0281
Exact or approximate P value?			Approximate
P value summary			*
Do the medians vary signif. (P < 0.05)?			Yes
Number of groups			5
Kruskal-Wallis statistic			10,87
Dunn's multiple comparisons test	Mean rank diff,	Significant?	
ERM vs. DMSO	5,600	No	
ERM vs. TCS	4,825	No	
ERM vs. MP	15,62	Yes	
ERM vs. MP+TCS	16,38	Yes	

Lampiran 7. Data kelangsungan hidup

ERM	DMSO	TCS	MP	MP + TCS
100	100	100	100	0
100	100	100	0	100
100	100	100	100	100
100	100	100	100	100
100	100	100	100	0
100	100	100	100	100
100	100	0	100	100
100	100	0	100	100
100	100	100	100	100
100	100	100	100	0

CURRICULUM VITAE

A. Data Pribadi

1. Nama : Andi Dina Hardiana
2. Tempat, tgl. Lahir : Watampone, 22 Oktober 1999
3. Alamat : BTN Tibojong Indah Permai, Bone
4. Kewarganegaraan: Warga Negara Indonesia

B. Riwayat Pendidikan

1. Tamat SLTA tahun 2017 di SMAN 1 Watampone
2. Sarjana (S1) tahun 2021 di Universitas Hasanuddin

C. Karya Ilmiah yang telah dipublikasikan

Hardiana, A.D., Yaqin, K., Yanuarita, D. and Tresnati, J., 2021, October. The effects of the antibiotic erythromycin on Oryzias javanicus in gender perspective. In *IOP Conference Series: Earth and Environmental Science* (Vol. 860, No. 1, p. 012011). IOP Publishing.