

## Supplementary Material

Pharmacokinetics and tissue disposition of enrofloxacin in rainbow trout after different routes of administration

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Tabla S1. Concentration of enrofloxacin (n = 5, The mean  $\pm$  SD) in plasma and tissues of group A trout (single dose of 10 mg/kg orally)

| <b>Time (hours)</b> | <b>Plasma</b>     | <b>Skin</b>       | <b>Muscle</b>     | <b>Liver</b>      | <b>Kidney</b>     | <b>Gut</b>        |
|---------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>0.25</b>         | 0.064 $\pm$ 0.012 | 0.031 $\pm$ 0.013 | 0.009 $\pm$ 0.001 | 0.081 $\pm$ 0.006 | 0.057 $\pm$ 0.016 | 0.075 $\pm$ 0.049 |
| <b>0.5</b>          | 0.083 $\pm$ 0.041 | 0.045 $\pm$ 0.018 | 0.024 $\pm$ 0.008 | 0.260 $\pm$ 0.166 | 0.085 $\pm$ 0.011 | 0.108 $\pm$ 0.059 |
| <b>0.75</b>         | 0.117 $\pm$ 0.031 | 0.057 $\pm$ 0.015 | 0.034 $\pm$ 0.004 | 0.544 $\pm$ 0.194 | 0.098 $\pm$ 0.011 | 0.200 $\pm$ 0.037 |
| <b>2</b>            | 0.243 $\pm$ 0.040 | 0.077 $\pm$ 0.005 | 0.039 $\pm$ 0.016 | 0.756 $\pm$ 0.543 | 0.146 $\pm$ 0.042 | 0.363 $\pm$ 0.084 |
| <b>3</b>            | 0.405 $\pm$ 0.102 | 0.088 $\pm$ 0.025 | 0.083 $\pm$ 0.045 | 0.770 $\pm$ 0.462 | 0.365 $\pm$ 0.244 | 0.501 $\pm$ 0.130 |
| <b>4</b>            | 0.468 $\pm$ 0.227 | 0.108 $\pm$ 0.051 | 0.100 $\pm$ 0.058 | 0.835 $\pm$ 0.575 | 0.322 $\pm$ 0.081 | 0.815 $\pm$ 0.260 |
| <b>6</b>            | 0.925 $\pm$ 0.052 | 0.206 $\pm$ 0.039 | 0.280 $\pm$ 0.105 | 1.783 $\pm$ 0.352 | 0.646 $\pm$ 0.357 | 1.928 $\pm$ 0.689 |
| <b>8</b>            | 0.591 $\pm$ 0.115 | 0.258 $\pm$ 0.101 | 0.321 $\pm$ 0.028 | 2.012 $\pm$ 0.696 | 0.723 $\pm$ 0.527 | 3.957 $\pm$ 1.225 |
| <b>12</b>           | 0.365 $\pm$ 0.221 | 0.555 $\pm$ 0.069 | 1.15 $\pm$ 0.192  | 2.104 $\pm$ 0.370 | 1.992 $\pm$ 0.492 | 4.202 $\pm$ 0.960 |
| <b>24</b>           | 0.158 $\pm$ 0.089 | 1.725 $\pm$ 0.337 | 1.023 $\pm$ 0.291 | 1.673 $\pm$ 0.508 | 5.140 $\pm$ 0.558 | 2.189 $\pm$ 0.322 |
| <b>48</b>           | 0.142 $\pm$ 0.063 | 1.437 $\pm$ 0.528 | 0.512 $\pm$ 0.238 | 0.860 $\pm$ 0.253 | 3.770 $\pm$ 1.021 | 1.300 $\pm$ 0.625 |
| <b>72</b>           | 0.101 $\pm$ 0.022 | 1.286 $\pm$ 0.515 | 0.327 $\pm$ 0.080 | 0.685 $\pm$ 0.112 | 2.972 $\pm$ 0.501 | 0.981 $\pm$ 0.436 |
| <b>96</b>           | 0.087 $\pm$ 0.017 | 0.946 $\pm$ 0.609 | 0.225 $\pm$ 0.078 | 0.576 $\pm$ 0.038 | 1.946 $\pm$ 0.264 | 0.480 $\pm$ 0.143 |
| <b>120</b>          | 0.050 $\pm$ 0.003 | 0.657 $\pm$ 0.458 | 0.142 $\pm$ 0.079 | 0.327 $\pm$ 0.011 | 1.118 $\pm$ 0.138 | 0.367 $\pm$ 0.140 |

Tabla S2. Concentration of enrofloxacin (n = 5, The mean  $\pm$  SD) in plasma and tissues of group B trout (Immersion baths of 20 ppm during 2.5 hours)

| <b>Time (hours)</b> | <b>Plasma</b>     | <b>Skin</b>       | <b>Muscle</b>     | <b>Liver</b>      | <b>Kidney</b>     | <b>Gut</b>        |
|---------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>0.25</b>         | 0.397 $\pm$ 0.048 | 0.092 $\pm$ 0.027 | 0.084 $\pm$ 0.008 | 0.217 $\pm$ 0.047 | 0.152 $\pm$ 0.003 | 0.370 $\pm$ 0.098 |
| <b>0.5</b>          | 0.308 $\pm$ 0.105 | 0.121 $\pm$ 0.014 | 0.097 $\pm$ 0.017 | 0.302 $\pm$ 0.127 | 0.164 $\pm$ 0.006 | 0.506 $\pm$ 0.089 |
| <b>0.75</b>         | 0.292 $\pm$ 0.043 | 0.145 $\pm$ 0.013 | 0.104 $\pm$ 0.024 | 0.322 $\pm$ 0.079 | 0.184 $\pm$ 0.020 | 0.450 $\pm$ 0.065 |
| <b>2</b>            | 0.232 $\pm$ 0.029 | 0.146 $\pm$ 0.016 | 0.113 $\pm$ 0.038 | 0.341 $\pm$ 0.025 | 0.204 $\pm$ 0.082 | 0.625 $\pm$ 0.275 |
| <b>1</b>            | 0.190 $\pm$ 0.004 | 0.157 $\pm$ 0.028 | 0.123 $\pm$ 0.007 | 0.347 $\pm$ 0.064 | 0.236 $\pm$ 0.014 | 0.693 $\pm$ 0.268 |
| <b>3</b>            | 0.179 $\pm$ 0.034 | 0.165 $\pm$ 0.045 | 0.152 $\pm$ 0.071 | 0.359 $\pm$ 0.029 | 0.280 $\pm$ 0.066 | 0.723 $\pm$ 0.339 |
| <b>4</b>            | 0.138 $\pm$ 0.038 | 0.192 $\pm$ 0.067 | 0.170 $\pm$ 0.042 | 0.381 $\pm$ 0.119 | 0.341 $\pm$ 0.129 | 0.749 $\pm$ 0.430 |
| <b>6</b>            | 0.127 $\pm$ 0.021 | 0.244 $\pm$ 0.070 | 0.193 $\pm$ 0.043 | 0.434 $\pm$ 0.022 | 0.414 $\pm$ 0.144 | 0.797 $\pm$ 0.152 |
| <b>8</b>            | 0.122 $\pm$ 0.040 | 0.253 $\pm$ 0.076 | 0.322 $\pm$ 0.083 | 0.452 $\pm$ 0.087 | 0.462 $\pm$ 0.240 | 0.812 $\pm$ 0.122 |
| <b>12</b>           | 0.116 $\pm$ 0.013 | 0.497 $\pm$ 0.069 | 0.519 $\pm$ 0.075 | 0.557 $\pm$ 0.049 | 0.592 $\pm$ 0.348 | 0.829 $\pm$ 0.097 |
| <b>24</b>           | 0.097 $\pm$ 0.022 | 0.771 $\pm$ 0.083 | 0.260 $\pm$ 0.157 | 0.263 $\pm$ 0.002 | 1.012 $\pm$ 0.165 | 0.712 $\pm$ 0.141 |
| <b>48</b>           | 0.086 $\pm$ 0.031 | 0.481 $\pm$ 0.091 | 0.107 $\pm$ 0.011 | 0.228 $\pm$ 0.006 | 0.788 $\pm$ 0.287 | 0.405 $\pm$ 0.134 |
| <b>72</b>           | 0.047 $\pm$ 0.027 | 0.418 $\pm$ 0.029 | 0.076 $\pm$ 0.001 | 0.162 $\pm$ 0.018 | 0.552 $\pm$ 0.175 | 0.136 $\pm$ 0.038 |
| <b>96</b>           | 0.032 $\pm$ 0.008 | 0.375 $\pm$ 0.100 | 0.052 $\pm$ 0.002 | 0.152 $\pm$ 0.025 | 0.473 $\pm$ 0.157 | 0.110 $\pm$ 0.009 |
| <b>120</b>          | 0.020 $\pm$ 0.021 | 0.141 $\pm$ 0.049 | 0.035 $\pm$ 0.005 | 0.104 $\pm$ 0.026 | 0.289 $\pm$ 0.059 | 0.088 $\pm$ 0.014 |

Tabla S3. Concentration of enrofloxacin (n = 5, The mean  $\pm$  SD) in plasma and tissues of group C trout (Immersion baths of 100 ppm during 0.5 hours)

| <b>Time (hours)</b> | <b>Plasma</b>     | <b>Skin</b>       | <b>Muscle</b>     | <b>Liver</b>      | <b>Kidney</b>     | <b>Gut</b>        |
|---------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>0.25</b>         | 0.437 $\pm$ 0.078 | 0.129 $\pm$ 0.019 | 0.112 $\pm$ 0.003 | 0.377 $\pm$ 0.014 | 0.136 $\pm$ 0.030 | 0.575 $\pm$ 0.093 |
| <b>0.5</b>          | 0.349 $\pm$ 0.025 | 0.136 $\pm$ 0.021 | 0.139 $\pm$ 0.015 | 0.390 $\pm$ 0.045 | 0.196 $\pm$ 0.009 | 0.674 $\pm$ 0.228 |
| <b>0.75</b>         | 0.218 $\pm$ 0.037 | 0.167 $\pm$ 0.035 | 0.151 $\pm$ 0.015 | 0.419 $\pm$ 0.011 | 0.224 $\pm$ 0.010 | 0.756 $\pm$ 0.125 |
| <b>2</b>            | 0.201 $\pm$ 0.021 | 0.216 $\pm$ 0.038 | 0.172 $\pm$ 0.028 | 0.502 $\pm$ 0.040 | 0.328 $\pm$ 0.041 | 0.697 $\pm$ 0.092 |
| <b>1</b>            | 0.193 $\pm$ 0.020 | 0.259 $\pm$ 0.061 | 0.327 $\pm$ 0.017 | 0.527 $\pm$ 0.059 | 0.572 $\pm$ 0.191 | 0.829 $\pm$ 0.275 |
| <b>3</b>            | 0.188 $\pm$ 0.019 | 0.277 $\pm$ 0.142 | 0.439 $\pm$ 0.042 | 0.552 $\pm$ 0.014 | 0.623 $\pm$ 0.107 | 0.762 $\pm$ 0.192 |
| <b>4</b>            | 0.169 $\pm$ 0.008 | 0.421 $\pm$ 0.121 | 0.469 $\pm$ 0.071 | 0.460 $\pm$ 0.011 | 0.689 $\pm$ 0.167 | 0.693 $\pm$ 0.236 |
| <b>6</b>            | 0.165 $\pm$ 0.009 | 0.485 $\pm$ 0.085 | 0.282 $\pm$ 0.070 | 0.360 $\pm$ 0.059 | 0.694 $\pm$ 0.271 | 0.586 $\pm$ 0.265 |
| <b>8</b>            | 0.149 $\pm$ 0.007 | 0.551 $\pm$ 0.103 | 0.199 $\pm$ 0.018 | 0.337 $\pm$ 0.007 | 0.862 $\pm$ 0.183 | 0.508 $\pm$ 0.296 |
| <b>12</b>           | 0.127 $\pm$ 0.030 | 0.773 $\pm$ 0.192 | 0.165 $\pm$ 0.018 | 0.328 $\pm$ 0.037 | 1.011 $\pm$ 0.060 | 0.486 $\pm$ 0.024 |
| <b>24</b>           | 0.121 $\pm$ 0.014 | 0.570 $\pm$ 0.070 | 0.140 $\pm$ 0.018 | 0.297 $\pm$ 0.036 | 0.737 $\pm$ 0.076 | 0.426 $\pm$ 0.063 |
| <b>48</b>           | 0.108 $\pm$ 0.013 | 0.537 $\pm$ 0.124 | 0.085 $\pm$ 0.016 | 0.109 $\pm$ 0.013 | 0.638 $\pm$ 0.102 | 0.227 $\pm$ 0.054 |
| <b>72</b>           | 0.086 $\pm$ 0.013 | 0.505 $\pm$ 0.065 | 0.080 $\pm$ 0.018 | 0.092 $\pm$ 0.025 | 0.496 $\pm$ 0.071 | 0.160 $\pm$ 0.042 |
| <b>96</b>           | 0.051 $\pm$ 0.011 | 0.399 $\pm$ 0.024 | 0.040 $\pm$ 0.014 | 0.086 $\pm$ 0.008 | 0.382 $\pm$ 0.129 | 0.122 $\pm$ 0.030 |
| <b>120</b>          | 0.019 $\pm$ 0.010 | 0.234 $\pm$ 0.026 | 0.022 $\pm$ 0.009 | 0.080 $\pm$ 0.002 | 0.137 $\pm$ 0.016 | 0.075 $\pm$ 0.009 |