

## Cell cycle regulation during early mouse embryogenesis.

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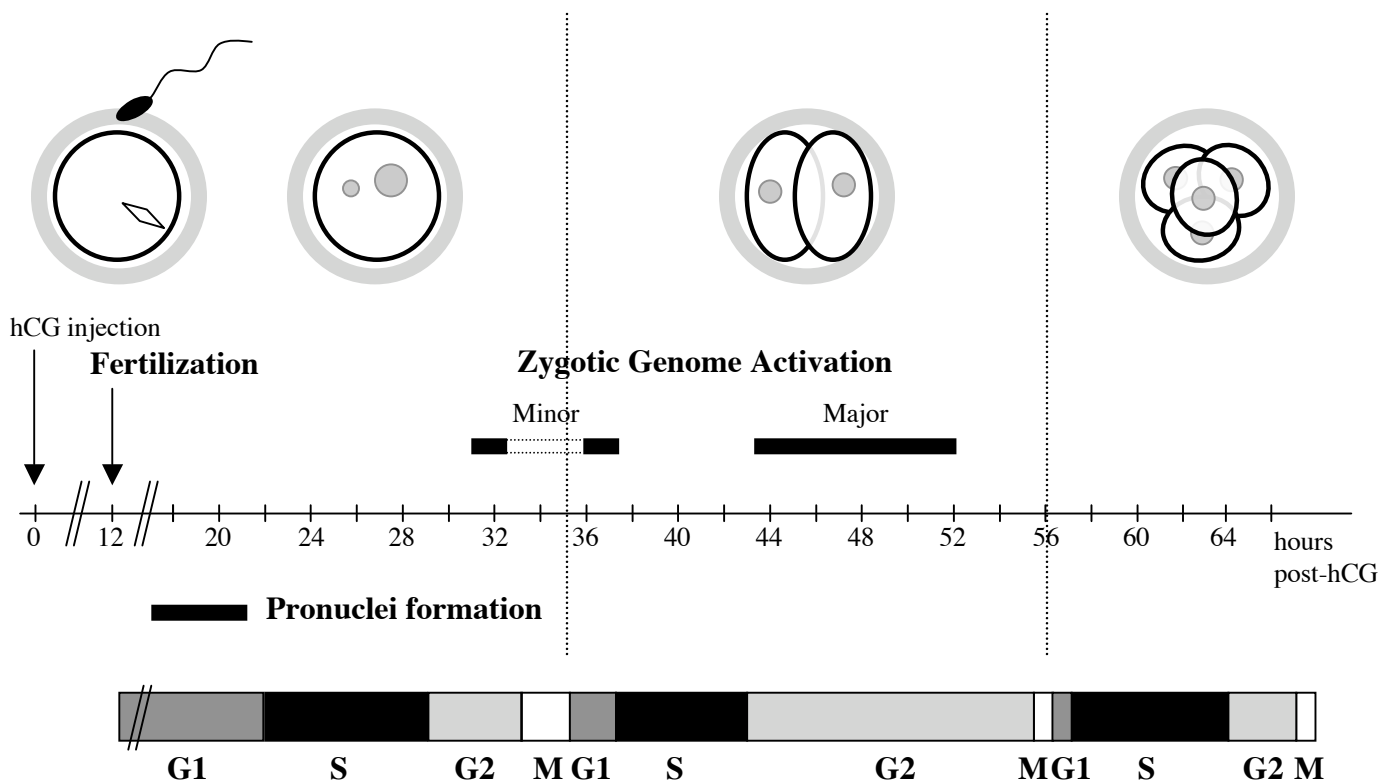
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hCG injection

**Fertilization**

**Zygotic Genome Activation**

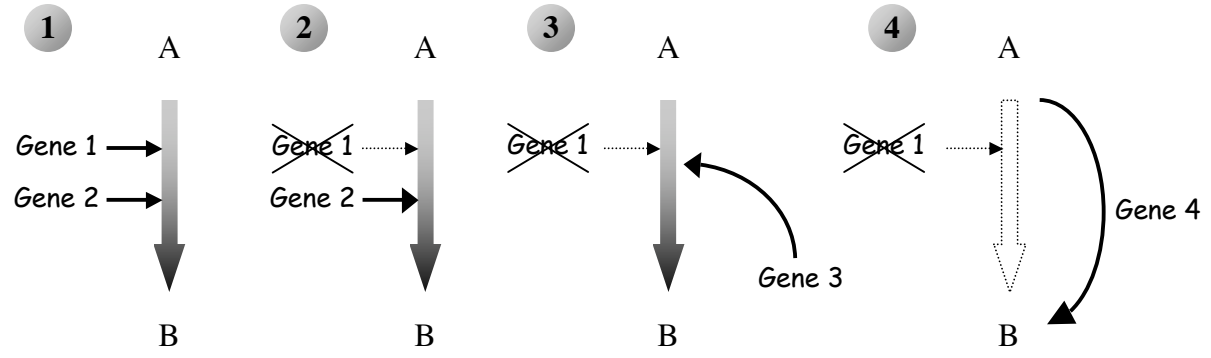
Minor

Major

0 12 20 24 28 32 36 40 44 48 52 56 60 64 hours post-hCG

**Pronuclei formation**

G1 S G2 M G1 S G2 MG1 S G2 M



| 1 <sup>st</sup> division |            |            |   | 2 <sup>d</sup> division |            |             |     | 3 <sup>rd</sup> division |            |            |     | 4 <sup>th</sup> division |          |          |   | References          |
|--------------------------|------------|------------|---|-------------------------|------------|-------------|-----|--------------------------|------------|------------|-----|--------------------------|----------|----------|---|---------------------|
| G1                       | S          | G2         | M | G1                      | S          | G2          | M   | G1                       | S          | G2         | M   | G1                       | S        | G2       | M |                     |
| 4                        | 4          | 3-5        |   |                         |            |             |     |                          |            |            |     |                          |          |          |   | [6]                 |
| 9                        | 6-7        |            | 5 |                         |            |             |     |                          |            |            |     |                          |          |          |   | [121]               |
| 8                        | 4          |            |   |                         |            |             |     |                          |            |            |     |                          |          |          |   | [7]                 |
|                          | 7-8        |            |   |                         |            |             |     |                          |            |            |     |                          |          |          |   | [122]               |
|                          | 4          | 8          |   | 0.5                     | 7          | 11.5        |     | 1                        | 7          | 2          |     |                          |          |          |   | [3]                 |
|                          | 5          | 5          |   | 2                       | 6          | 14          |     | 1                        | 7          |            |     |                          |          |          |   | [3]                 |
|                          |            |            |   | 1                       | 4          |             |     |                          |            |            |     |                          |          |          |   | [123]               |
|                          |            |            |   | 1                       | 6          | 12          |     |                          |            |            |     |                          |          |          |   | [10]                |
|                          |            |            |   | 1.3                     | 6.1        | 15.4        | 1.3 | 1.6                      | 7.4        | 0.5        | 1.2 |                          |          |          |   | [12]                |
|                          |            |            |   |                         |            |             |     | 1                        | 7          | 2-5        |     | 2                        | 7        | 1-3      |   | [124]               |
| <b>7</b>                 | <b>5.3</b> | <b>6.5</b> |   | <b>1.2</b>              | <b>5.8</b> | <b>13.5</b> |     | <b>1.1</b>               | <b>7.1</b> | <b>2.9</b> |     | <b>2</b>                 | <b>7</b> | <b>3</b> |   | <b>Average</b>      |
| <b>19</b>                |            |            |   | <b>20</b>               |            |             |     | <b>11</b>                |            |            |     | <b>11</b>                |          |          |   | <b>Total lenght</b> |

| <b>Embryonic layer</b> | <b>G1</b> | <b>S</b> | <b>G2</b> | <b>M</b> | <b>Total</b> | <b>Reference</b> |
|------------------------|-----------|----------|-----------|----------|--------------|------------------|
| Ectoderm               | 0.25      | 4        | 0.5       | 1.5h     | <b>6.25</b>  | [24]             |
|                        | 1.5-2     | 3.5-4    | <0.7      | 0.75h    | <b>7-7.5</b> | [22]             |
|                        |           |          |           |          | <b>8.1</b>   | [23]             |
| Mesoderm               | 0.7       | 5        | 0.5       | 1.3      | <b>7.5</b>   | [24]             |
|                        | 1.5-2     | 3.5-4    | <0.7      | 0.75     | <b>7-7.5</b> | [22]             |
|                        |           |          |           |          | <b>13.9</b>  | [23]             |
| Proliferative zone     | <0.5      | 2-2,75   | <0.3      | 0.75     | <b>3-3.5</b> | [22]             |
|                        |           |          |           |          | <b>3.6</b>   | [23]             |