# NNF and PNF 1M8

Based on the parameters for SNF 1M8 model, which is listed below

|  |  |
| --- | --- |
| Choice of parameters for SNF 1M8 homozygous diploid | |
| Parameter | Value |
| Kd | 0.3 |
| At0 | 6 |
| alpha | 7 |
| Vmax (MM degradation Vmax) | 1.3 |
| Km | 1 |
| Ka | 1 |

At = At0\*FCATR = 6 is the total amount of BMAl

Dimensional = At \*C, where C = =2/0.3 = 6.7,

therefore, 0.9 nM

When introduced the addition negative feedback loop in NNF model, average BMAL (At) wants to be similar to the BMAL level.

**Modified Kim-Forger NNF model.** Equations (10)-(14) plus

|  |  |  |
| --- | --- | --- |
|  |  | (16) |
|  |  | (17) |

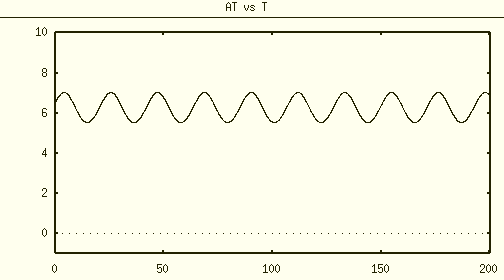
**Modified Kim-Forger PNF model.** Equations (10)-(14) plus

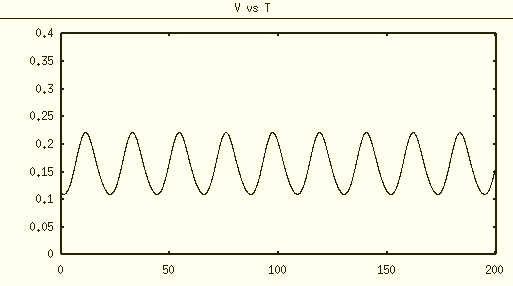
|  |  |  |
| --- | --- | --- |
|  |  | (18) |
|  |  | (19) |

NNF 1M8

|  |  |
| --- | --- |
| Vmax (max Rev) | 1 |
| Km | 1 |
| Ka | 1 |
| delta | 0.2 |

Kv=0.1, Amax=16 s.t average BMAL At=6, max(V) = 0.2 (50,000 Rev molecules from experiment)



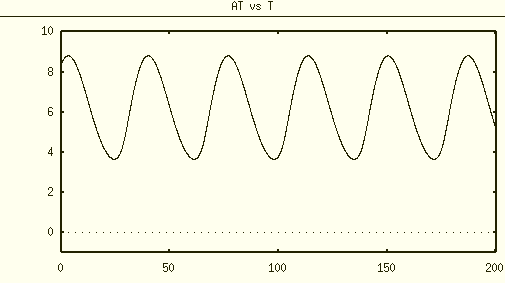


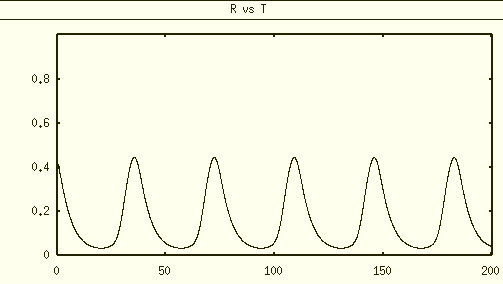
For PNF 1M8 model

Same parameter value as NNF1M8 and SNF 1M8

|  |  |
| --- | --- |
| Rmax (max Ror) | 1 |
| Km | 1 |
| Ka | 1 |
| delta | 0.2 |
| Kd | 0.3 |
| At0 | 6 |
| alpha | 7 |
| Vmax (MM degradation Vmax) | 1.3 |
| Km | 1 |
| Ka | 1 |
| Kr | 0.1 |

Tune Amax = 12 s.t. average At = 6





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NNF

delta, Amax, Kv