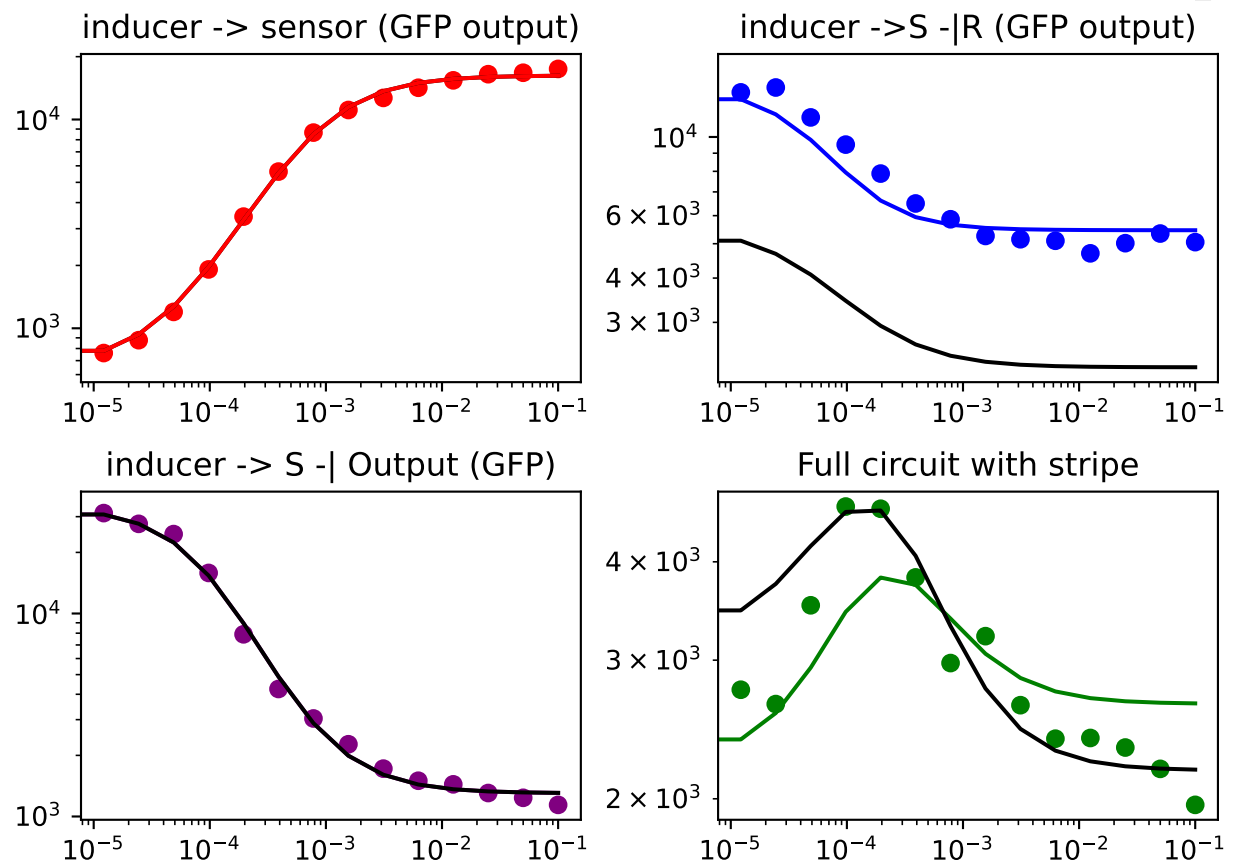


['SM data type data plots for mutation', 'Regulator3', 'using model:', 'model_hill.model']



Initial Guess
Converged
Converged
Converged
Converged

time elapsed for this fit
--- 5.3845109939575195 seconds ---

Across all four plots:

RSS (converged)=0.139

RSS (initial)=2.427

RSS (% reduction)=0.946

| | epsilon | Initial_guesses | Converged |
|-----|--------------|-----------------|--------------|
| A_s | 0.000000 | 650.714912 | 650.714912 |
| B_s | 0.000000 | 16259.979950 | 16259.979950 |
| C_s | 0.000000 | 1296.448889 | 1296.448889 |
| N_s | 0.000000 | 1.154067 | 1.154067 |
| A_r | 3315.908874 | 2020.019216 | 5335.928090 |
| B_r | -5098.636303 | 23688.809187 | 18590.172884 |
| C_r | -0.008686 | 0.010358 | 0.001672 |
| N_r | 0.613024 | 0.910072 | 1.523097 |
| A_h | 0.000000 | 143.802212 | 143.802212 |
| B_h | 0.000000 | 50238.271408 | 50238.271408 |
| C_h | 0.000000 | 0.000929 | 0.000929 |
| A_o | 0.000000 | 1.673894 | 1.673894 |
| B_o | 0.000000 | 0.895342 | 0.895342 |
| C_o | 0.000000 | 2.657699 | 2.657699 |
| N_o | 0.000000 | 1.379953 | 1.379953 |
| F_o | 1.539401 | 2.361284 | 3.900684 |

message: Optimization terminated successfully.
success: True
status: 0
fun: 0.13893787423679754
x: [6.507e+02 1.626e+04 ... 1.380e+00 3.901e+00]
nit: 1720
nfev: 2527
final_simplex: (array([[6.507e+02, 1.626e+04, ..., 1.380e+00, 3.901e+00],
[6.507e+02, 1.626e+04, ..., 1.380e+00, 3.901e+00],
...,
[6.507e+02, 1.626e+04, ..., 1.380e+00, 3.901e+00],
[6.507e+02, 1.626e+04, ..., 1.380e+00, 3.901e+00]]), array([1.389e-01, 1.389e-01, ..., 1.389e-01, 1.389e-01]))