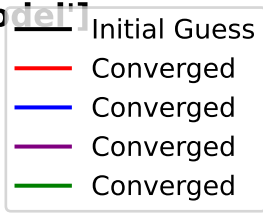
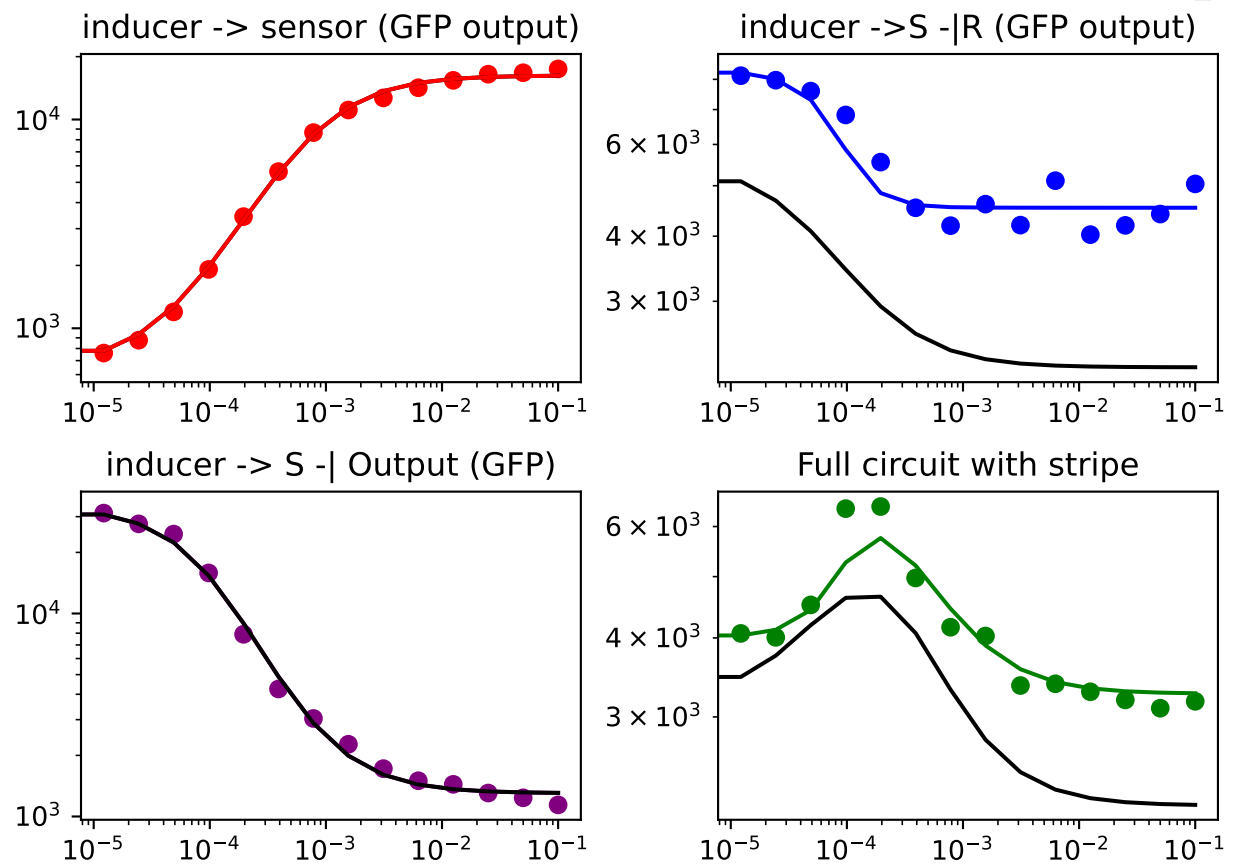


['SM data type data plots for mutation', 'Regulator2', 'using model:', 'model\_hill.model']



time elapsed for this fit  
--- 5.856753826141357 seconds ---

Across all four plots:  
RSS (converged)=0.058  
RSS (initial)=1.38  
RSS (% reduction)=0.959

|     | 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 | 2514.691338   | 2020.019216     | 4534.710554  |
| B_r | -19676.123747 | 23688.809187    | 4012.685440  |
| C_r | -0.009735     | 0.010358        | 0.000623     |
| N_r | 2.541487      | 0.910072        | 3.451559     |
| 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 | 2.116491      | 2.361284        | 4.477775     |

message: Optimization terminated successfully.  
success: True  
status: 0  
fun: 0.05843309386786325  
x: [ 6.507e+02 1.626e+04 ... 1.380e+00 4.478e+00]  
nit: 1886  
nfev: 2683  
final\_simplex: (array([[ 6.507e+02, 1.626e+04, ..., 1.380e+00, 4.478e+00],  
[ 6.507e+02, 1.626e+04, ..., 1.380e+00, 4.478e+00],  
...,  
[ 6.507e+02, 1.626e+04, ..., 1.380e+00, 4.478e+00],  
[ 6.507e+02, 1.626e+04, ..., 1.380e+00, 4.478e+00]]), array([ 5.843e-02, 5.843e-02, ..., 5.843e-02, 5.843e-02]))