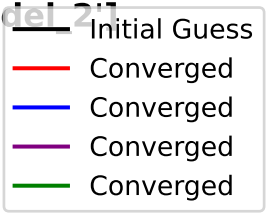
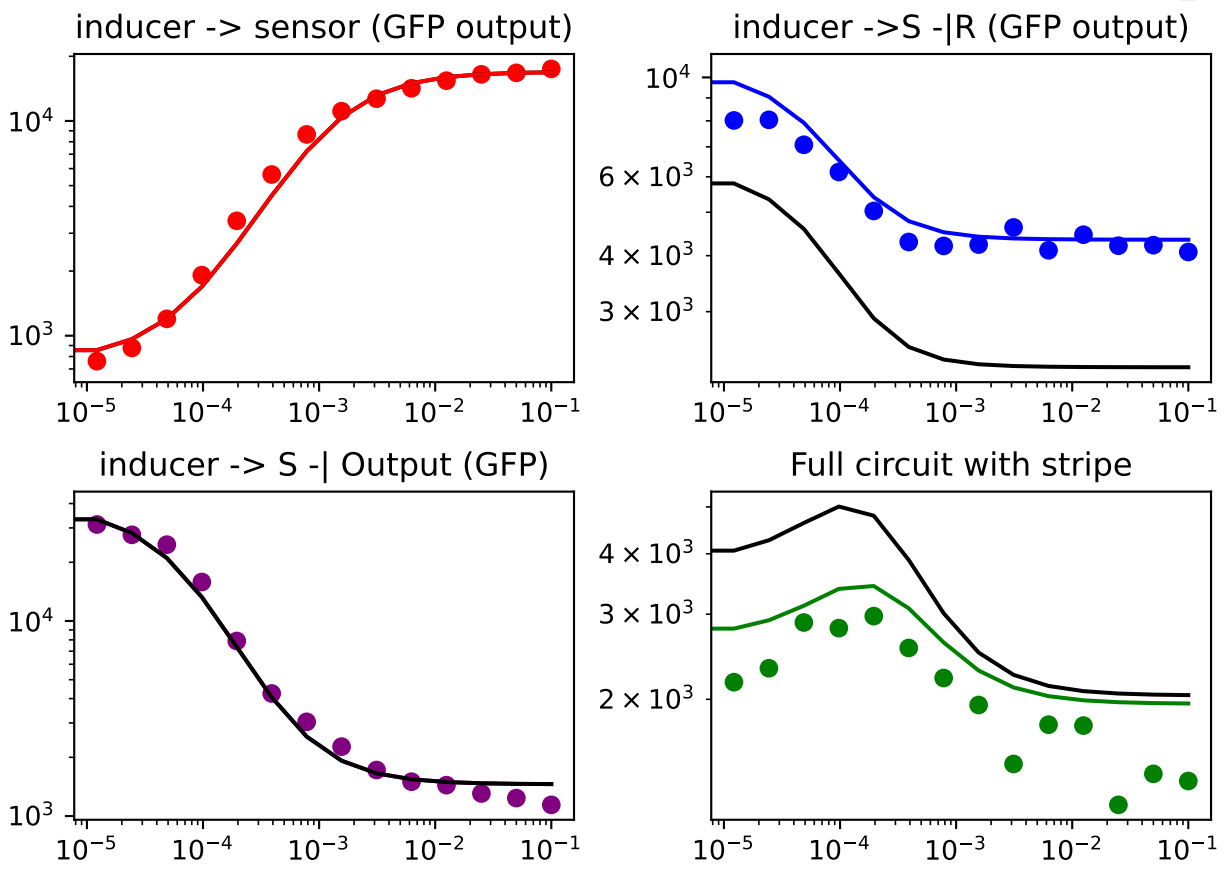


['SM data type data plots for mutation', 'Regulator10', 'using model:', 'model_hill.model_2']



time elapsed for this fit
--- 2.7734153270721436 seconds ---

Across all four plots:

RSS (converged)=0.294

RSS (initial)=1.548

RSS (% reduction)=0.84

| | epsilon | Initial_guesses | Converged |
|-----|-------------|-----------------|--------------|
| A_s | 0.000000 | 7.671584e+02 | 7.671584e+02 |
| B_s | 0.000000 | 1.694202e+04 | 1.694202e+04 |
| C_s | 0.000000 | 8.969736e+02 | 8.969736e+02 |
| N_s | 0.000000 | 1.151182e+00 | 1.151182e+00 |
| A_r | 2058.038253 | 2.229804e+03 | 4.287842e+03 |
| B_r | 7528.988809 | 8.961652e+03 | 1.649064e+04 |
| C_r | 0.000312 | 1.461384e-03 | 1.773319e-03 |
| N_r | -0.160631 | 1.841235e+00 | 1.680604e+00 |
| A_o | 0.000000 | 9.859837e+02 | 9.859837e+02 |
| B_o | 0.000000 | 1.801530e+07 | 1.801530e+07 |
| C_o | 0.000000 | 1.010522e-01 | 1.010522e-01 |
| N_o | 0.000000 | 1.417996e+00 | 1.417996e+00 |
| F_o | 0.000000 | 1.477611e+00 | 1.477611e+00 |

message: Optimization terminated successfully.
success: True
status: 0
fun: 0.2943876364843967
x: [7.672e+02 1.694e+04 ... 1.418e+00 1.478e+00]
nit: 727
nfev: 1217
final_simplex: (array([[7.672e+02, 1.694e+04, ..., 1.418e+00, 1.478e+00],
[7.672e+02, 1.694e+04, ..., 1.418e+00, 1.478e+00],
...,
[7.672e+02, 1.694e+04, ..., 1.418e+00, 1.478e+00],
[7.672e+02, 1.694e+04, ..., 1.418e+00, 1.478e+00]]), array([2.944e-01, 2.944e-01, ..., 2.944e-01, 2.944e-01]))