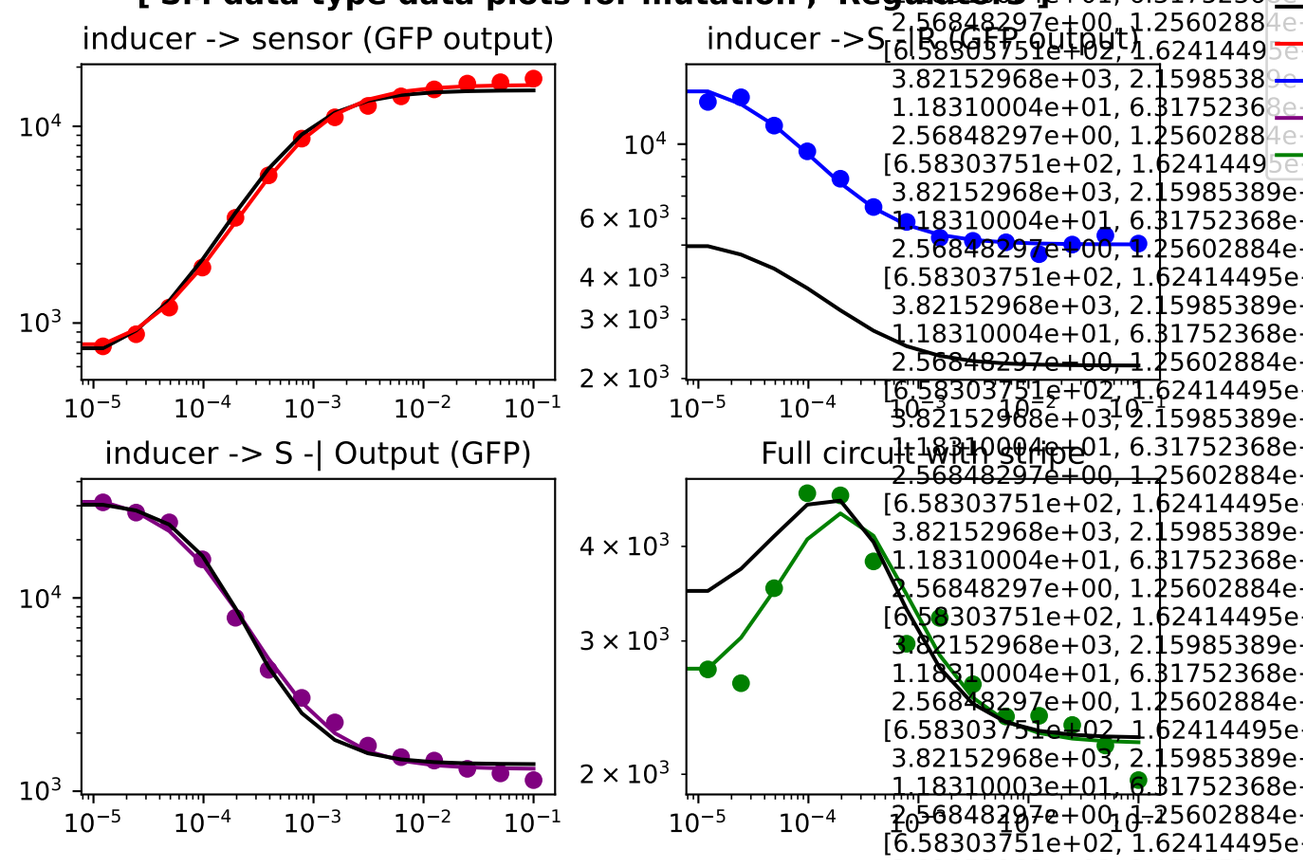
['SM data type data plots for mutation', 'Regulator3']



Across all four plots:

RSS (converged)=0.047

RSS (initial)=2.415

RSS (% reduction)=0.981

	epsilon	Initial_guesses	Converged
A_s	49.906648	608.397103	6.583038e+02
B_s	990.991790	15250.457700	1.624145e+04
C_s	-376.643680	1668.059050	1.291415e+03
N_s	-0.032207	1.198934	1.166726e+00
A_r	3133.564986	687.964693	3.821530e+03
B_r	192487.778005	23497.611400	2.159854e+05
C_r	0.012417	0.062367	7.478386e-02
N_r	0.338681	0.391731	7.304120e-01
A_h	-578.775548	590.606548	1.183100e+01
B_h	27888.111124	35287.125700	6.317524e+04
C_h	0.000763	0.000530	1.292991e-03
A_o	-0.829830	0.829830	4.108905e-08
B_o	-1.719687	4.288170	2.568483e+00
C_o	-1.877193	3.133222	1.256029e+00
N_o	-0.537668	1.809018	1.271350e+00

final_simplex: (array([[6.58303751e+02, 1.62414495e+04, 1.29141537e+03, 1.16672650e+00,
3.82152968e+03, 2.15985389e+05, 7.47838616e-02, 7.30411989e-01,
1.18310004e+01, 6.31752368e+04, 1.29299115e-03, 4.10890514e-08,
2.56848297e+00, 1.25602884e+00, 1.27135026e+00],
[6.58303751e+02, 1.62414495e+04, 1.29141537e+03, 1.16672650e+00,
3.82152968e+03, 2.15985389e+05, 7.47838616e-02, 7.30411989e-01,
1.18310005e+01, 6.31752368e+04, 1.29299115e-03, 4.10843557e-08,
2.56848297e+00, 1.25602884e+00, 1.27135026e+00],
[6.58303751e+02, 1.62414495e+04, 1.29141537e+03, 1.16672650e+00,
3.82152968e+03, 2.15985389e+05, 7.47838616e-02, 7.30411989e-01,
1.18310004e+01, 6.31752368e+04, 1.29299115e-03, 4.10871969e-08,
2.56848297e+00, 1.25602884e+00, 1.27135026e+00],
[6.58303751e+02, 1.62414495e+04, 1.29141537e+03, 1.16672650e+00,
3.82152968e+03, 2.15985389e+05, 7.47838616e-02, 7.30411989e-01,
1.18310004e+01, 6.31752368e+04, 1.29299115e-03, 4.10888233e-08,
2.56848297e+00, 1.25602884e+00, 1.27135026e+00],
[6.58303751e+02, 1.62414495e+04, 1.29141537e+03, 1.16672650e+00,
3.82152968e+03, 2.15985389e+05, 7.47838616e-02, 7.30411989e-01,
1.18310003e+01, 6.31752368e+04, 1.29299115e-03, 4.10848253e-08,
2.56848297e+00, 1.25602884e+00, 1.27135026e+00],
[6.58303751e+02, 1.62414495e+04, 1.29141537e+03, 1.16672650e+00,
3.82152968e+03, 2.15985389e+05, 7.47838616e-02, 7.30411989e-01,
1.18310004e+01, 6.31752368e+04, 1.29299115e-03, 4.10848427e-08,
2.56848297e+00, 1.25602884e+00, 1.27135026e+00],
[6.58303751e+02, 1.62414495e+04, 1.29141537e+03, 1.16672650e+00,
3.82152968e+03, 2.15985389e+05, 7.47838616e-02, 7.30411989e-01,
1.18310004e+01, 6.31752368e+04, 1.29299115e-03, 4.10850228e-08,
2.56848297e+00, 1.25602884e+00, 1.27135026e+00],
[6.58303751e+02, 1.62414495e+04, 1.29141537e+03, 1.16672650e+00,
3.82152968e+03, 2.15985389e+05, 7.47838616e-02, 7.30411989e-01,
1.18310004e+01, 6.31752368e+04, 1.29299115e-03, 4.10870602e-08,
2.56848297e+00, 1.25602884e+00, 1.27135026e+00],
[6.58303751e+02, 1.62414495e+04, 1.29141537e+03, 1.16672650e+00,
3.82152968e+03, 2.15985389e+05, 7.47838616e-02, 7.30411989e-01,
1.18310004e+01, 6.31752368e+04, 1.29299115e-03, 4.10875520e-08,
2.56848297e+00, 1.25602884e+00, 1.27135026e+00],
[6.58303751e+02, 1.62414495e+04, 1.29141537e+03, 1.16672650e+00,
3.82152968e+03, 2.15985389e+05, 7.47838616e-02, 7.30411989e-01,
1.18310004e+01, 6.31752368e+04, 1.29299115e-03, 4.10876398e-08,
2.56848297e+00, 1.25602884e+00, 1.27135026e+00],
[6.58303751e+02, 1.62414495e+04, 1.29141537e+03, 1.16672650e+00,
3.82152968e+03, 2.15985389e+05, 7.47838616e-02, 7.30411989e-01,
1.18310004e+01, 6.31752368e+04, 1.29299115e-03, 4.10915337e-08,
2.56848297e+00, 1.25602884e+00, 1.27135026e+00],
[6.58303751e+02, 1.62414495e+04, 1.29141537e+03, 1.16672650e+00,
3.82152968e+03, 2.15985389e+05, 7.47838616e-02, 7.30411989e-01,
1.18310004e+01, 6.31752368e+04, 1.29299115e-03, 4.10823229e-08,
2.56848297e+00, 1.25602884e+00, 1.27135026e+00],
[6.58303751e+02, 1.62414495e+04, 1.29141537e+03, 1.16672650e+00,
3.82152968e+03, 2.15985389e+05, 7.47838616e-02, 7.30411989e-01,
1.18310003e+01, 6.31752368e+04, 1.29299115e-03, 4.10868392e-08,
2.56848297e+00, 1.25602884e+00, 1.27135026e+00],
[6.58303751e+02, 1.62414495e+04, 1.29141537e+03, 1.16672650e+00,
3.82152968e+03, 2.15985389e+05, 7.47838616e-02, 7.30411989e-01,
1.18310004e+01, 6.31752368e+04, 1.29299115e-03, 4.10880649e-08,
2.56848297e+00, 1.25602884e+00, 1.27135026e+00],
[6.58303751e+02, 1.62414495e+04, 1.29141537e+03, 1.16672650e+00,
3.82152968e+03, 2.15985389e+05, 7.47838616e-02, 7.30411989e-01,
1.18310004e+01, 6.31752368e+04, 1.29299115e-03, 4.10876868e-08,
2.56848297e+00, 1.25602884e+00, 1.27135026e+00],
[6.58303751e+02, 1.62414495e+04, 1.29141537e+03, 1.16672650e+00,
3.82152968e+03, 2.15985389e+05, 7.47838616e-02, 7.30411989e-01,
1.18310004e+01, 6.31752368e+04, 1.29299115e-03, 4.10890932e-08,
2.56848297e+00, 1.25602884e+00, 1.27135026e+00]]), array([0.04744041, 0.04744041, 0.04744041, 0.04744041, 0.04744041,
0.04744041, 0.04744041, 0.04744041, 0.04744041, 0.04744041,
0.04744041, 0.04744041, 0.04744041, 0.04744041, 0.04744041,
0.04744041]))
fun: 0.04744040995846519
message: 'Optimization terminated successfully.'
nfev: 29639
nit: 22660
status: 0
success: True
x: array([6.58303751e+02, 1.62414495e+04, 1.29141537e+03, 1.16672650e+00,
3.82152968e+03, 2.15985389e+05, 7.47838616e-02, 7.30411989e-01,
1.18310004e+01, 6.31752368e+04, 1.29299115e-03, 4.10890514e-08,
2.56848297e+00, 1.25602884e+00, 1.27135026e+00])