final_simplex: (array([[6.57058550e+02, 1.63624380e+04, 1.24904683e+03, 1.15172579e+00,
4.87336502e+03, 3.07391670e+05, 9.42296353e-02, 7.84035746e-01,
2.19330979e+02, 5.57517711e+04, 1.07647782e-03, 1.41362087e-01,
4.37503838e+00, 1.13561212e+00, 1.36570003e+00],
[6.57058550e+02, 1.63624380e+04, 1.24904683e+03, 1.15172579e+00,
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2.19330979e+02, 5.57517711e+04, 1.07647782e-03, 1.41362087e-01,
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2.19330979e+02, 5.57517711e+04, 1.07647782e-03, 1.41362087e-01,
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2.19330979e+02, 5.57517711e+04, 1.07647782e-03, 1.41362087e-01,
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2.19330979e+02, 5.57517711e+04, 1.07647782e-03, 1.41362087e-01,
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2.19330979e+02, 5.57517711e+04, 1.07647782e-03, 1.41362087e-01,
4.37503838e+00, 1.13561212e+00, 1.36570002e+00],
[6.57058550e+02, 1.63624380e+04, 1.24904683e+03, 1.15172579e+00,
4.87336502e+03, 3.07391670e+05, 9.42296353e-02, 7.84035747e-01,
2.19330979e+02, 5.57517711e+04, 1.07647782e-03, 1.41362087e-01,
4.37503838e+00, 1.13561212e+00, 1.36570002e+00]]), array([0.04344377, 0.04344377, 0.04344377, 0.04344377, 0.04344377,
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0.04344377]))
fun: 0.04344376701879155
message: 'Optimization terminated successfully.'
nfev: 17891
nit: 13552
status: 0
success: True
x: array([6.57058550e+02, 1.63624380e+04, 1.24904683e+03, 1.15172579e+00,
4.87336502e+03, 3.07391670e+05, 9.42296353e-02, 7.84035746e-01,
2.19330979e+02, 5.57517711e+04, 1.07647782e-03, 1.41362087e-01,
4.37503838e+00, 1.13561212e+00, 1.36570003e+00])

['SM data type data plots for mutation', 'Regulator99']

inducer -> sensor (GFP output)

inducer -> S -| R (GFP output)

inducer -> S -| Output (GFP)

Full circuit with stripe

Legend:
- Initial Guess
- Converged
- Converged
- Converged
- Converged

Across all four plots:

RSS (converged)=0.043

RSS (initial)=3.233

RSS (% reduction)=0.987

	epsilon	Initial_guesses	Converged
A_s	48.661447	608.397103	657.058550
B_s	1111.980284	15250.457700	16362.437984
C_s	-419.012222	1668.059050	1249.046828
N_s	-0.047208	1.198934	1.151726
A_r	4185.400326	687.964693	4873.365019
B_r	283894.058450	23497.611400	307391.669850
C_r	0.031862	0.062367	0.094230
N_r	0.392305	0.391731	0.784036
A_h	-371.275569	590.606548	219.330979
B_h	20464.645376	35287.125700	55751.771076
C_h	0.000547	0.000530	0.001076
A_o	-0.688468	0.829830	0.141362
B_o	0.086868	4.288170	4.375038
C_o	-1.997610	3.133222	1.135612
N_o	-0.443318	1.809018	1.365700