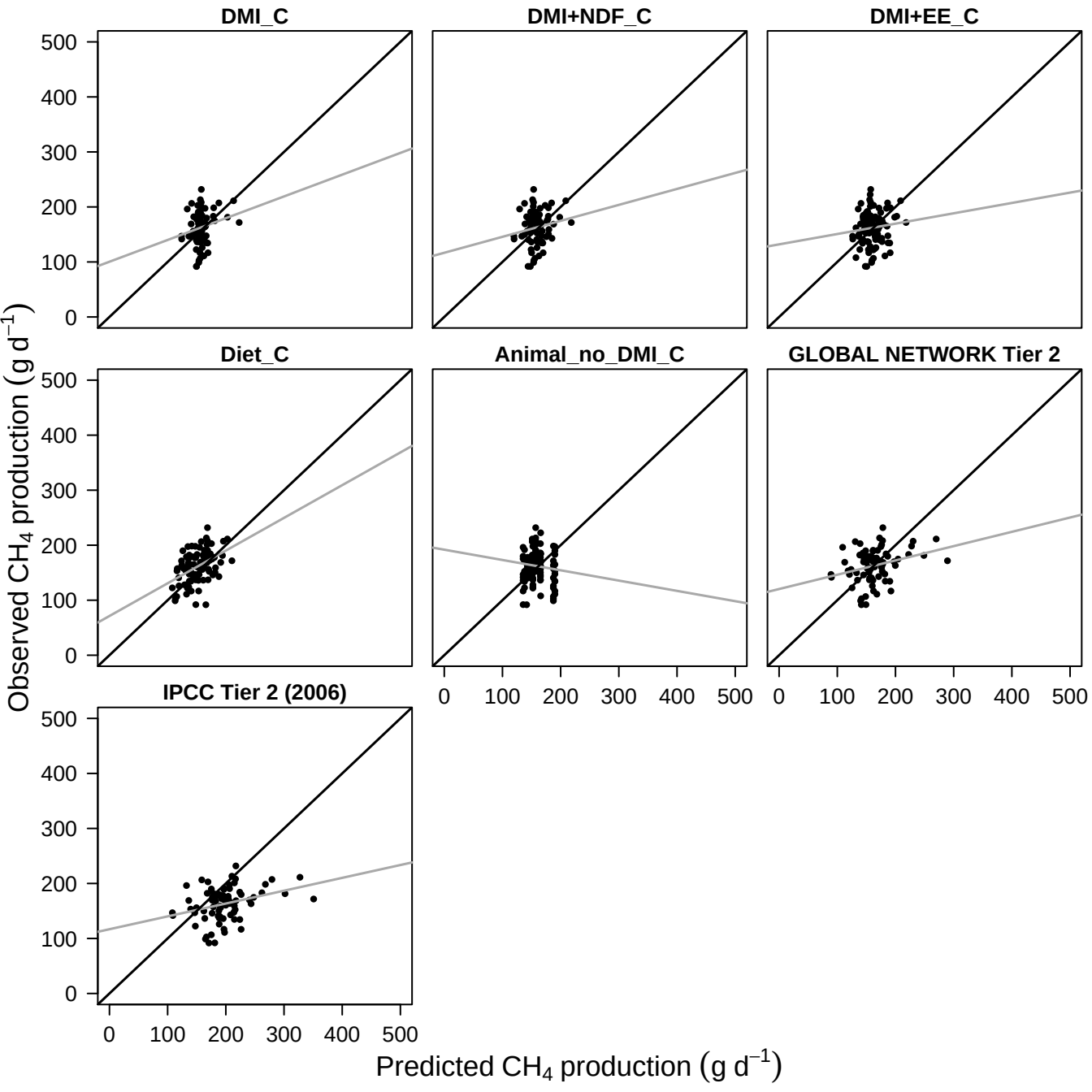
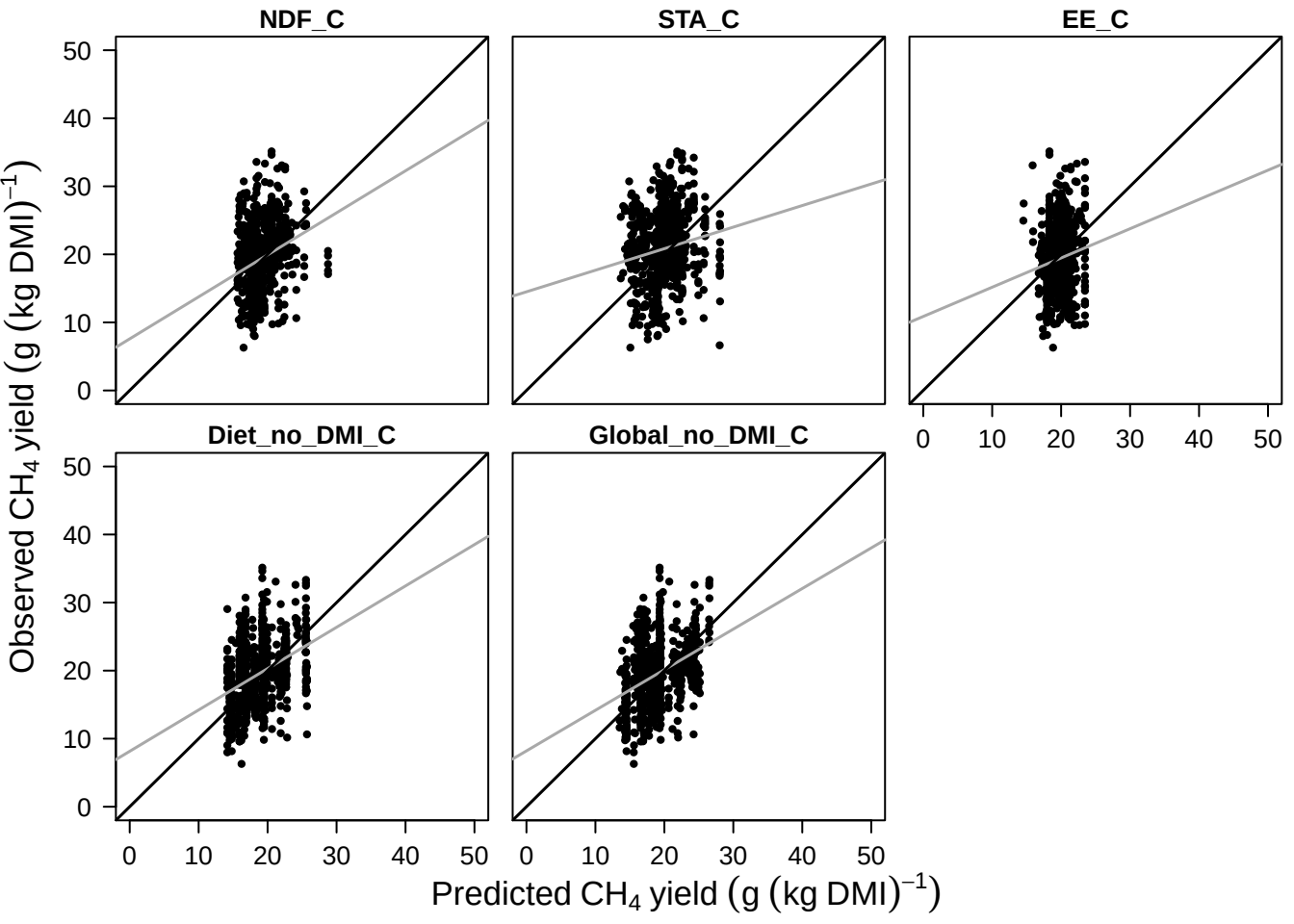
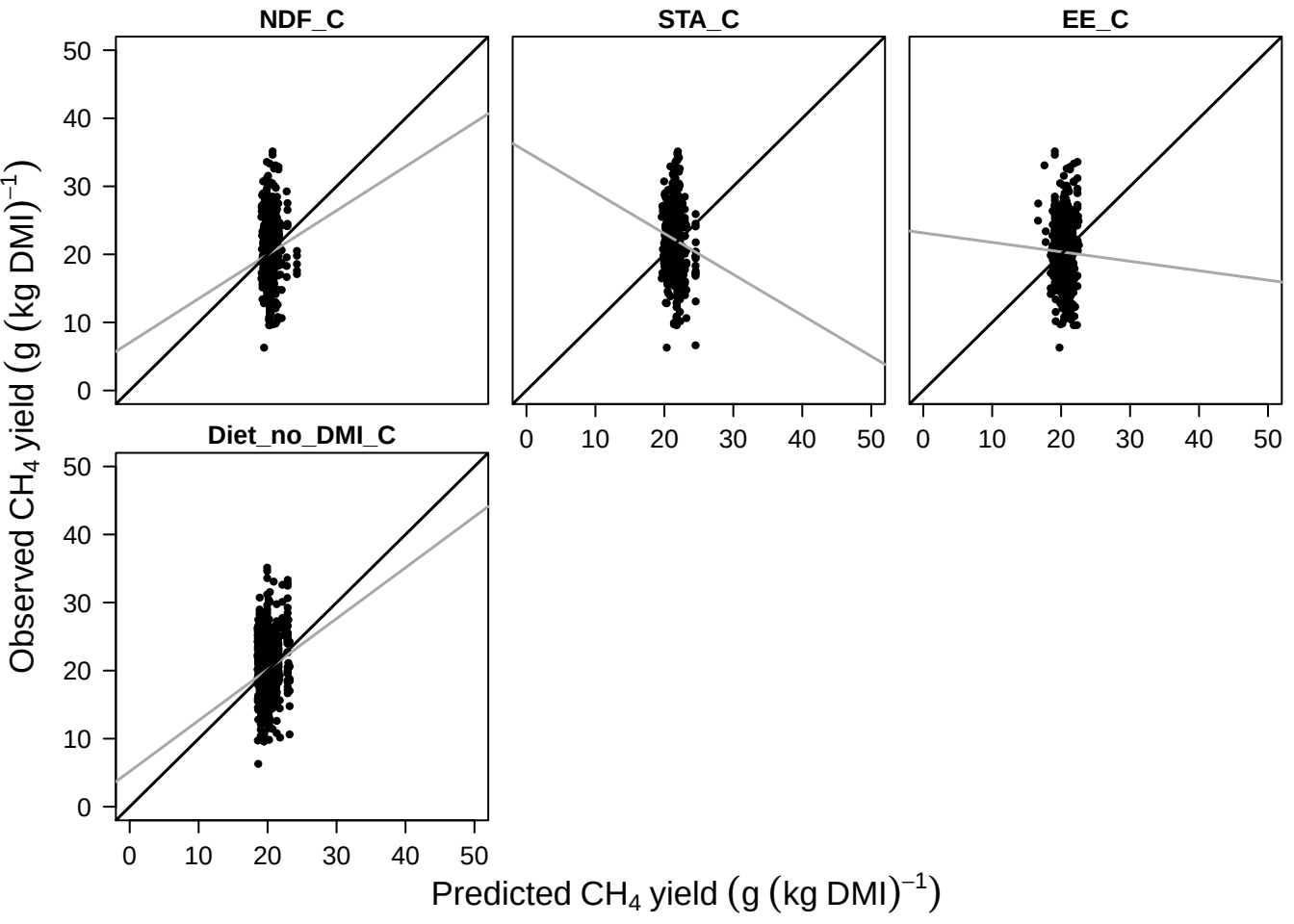
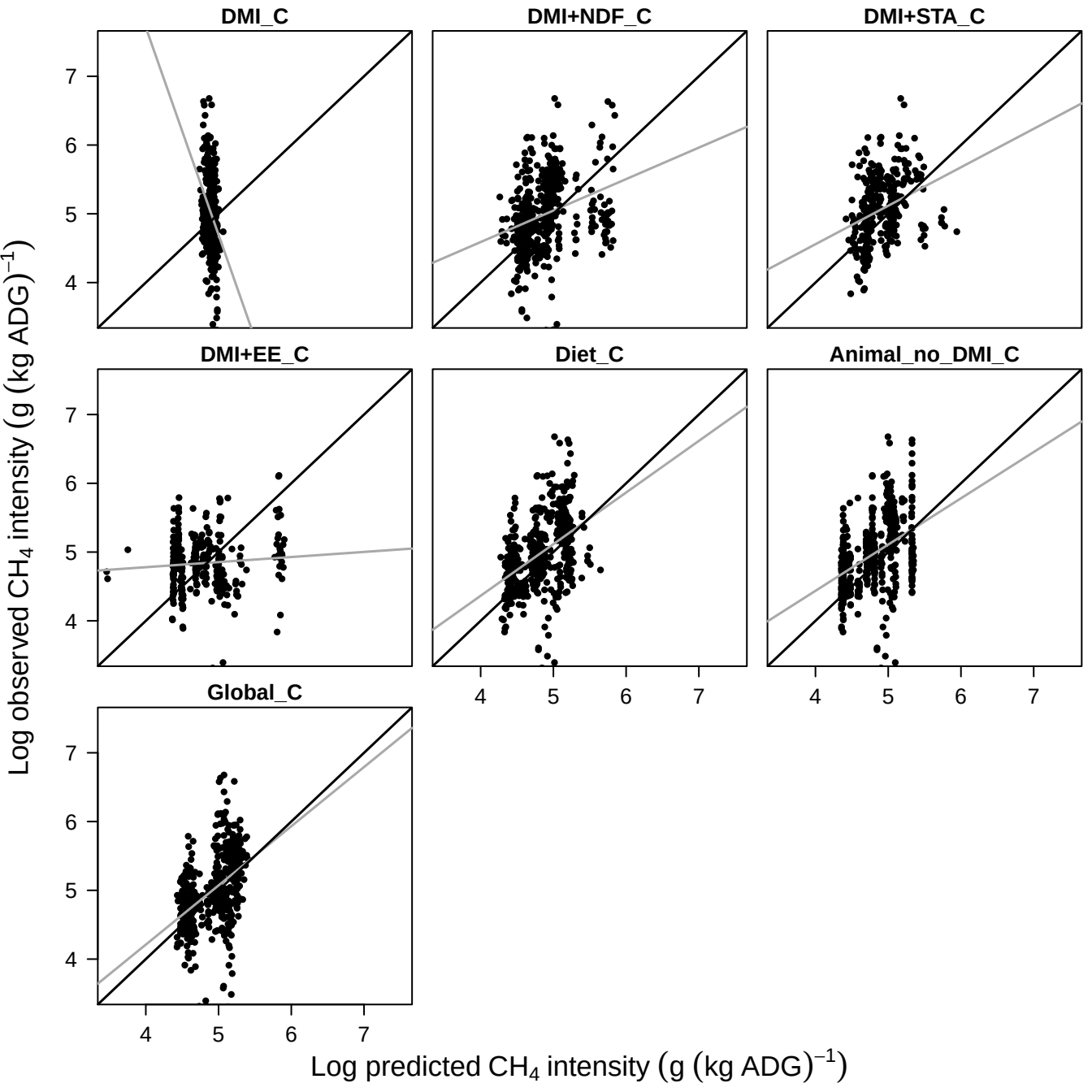
Prediction of enteric methane production, yield and intensity of beef cattle using an intercontinental database

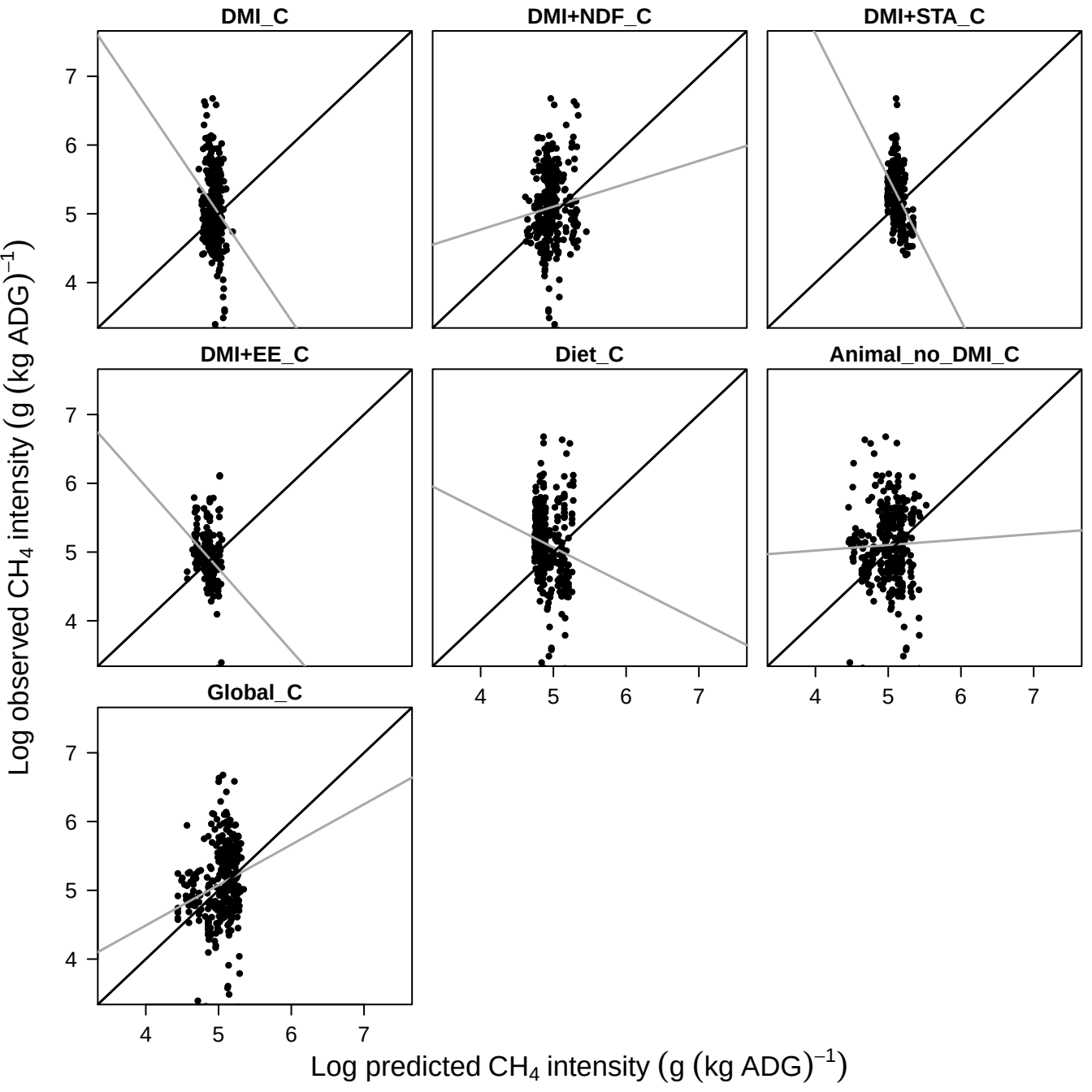
van Lingen, H. J., Niu, M., Kebreab, E., Valadares Filho, S. C., Rooke, J. A., Duthie, C. A., Schwarm, A., Kreuzer, M., Hynd, P. I., Caetano, M., Eugène, M., Martin, C., McGee, M., O'Kiely, P., Hünerberg, M., McAllister, T. A., Berchielli, T. T., Messana, J.D., Peiren, N., Chaves, A. V., Charmley, E., Cole, N. A., Hales, K. E., Lee, S. S., Berndt, A., Reynolds, C. ORCID: https://orcid.org/0000-0002-4152-1190, Crompton, L., Bayat, A. R., Yáñez-Ruiz, D. R., Yu, Z., Bannink, A., Dijkstra, J., Casper, D. P. and Hristov, A. N. (2019) Prediction of enteric methane production, yield and intensity of beef cattle using an intercontinental database. Agriculture Ecosystems & Environment, 283. 106575. ISSN 0167-8809 doi: https://doi.org/10.1016/j.agee.2019.106575 Available at https://centaur.reading.ac.uk/84405/


DMI_C
DMI+NDF_C
DMI+EE_C
Diet_C
Animal_no_DMI_C
GLOBAL NETWORK Tier 2
IPCC Tier 2 (2006)
Observed CH_4 production (g d^{-1})
Predicted CH_4 production (g d^{-1})
0
100
200
300
400
500


NDF_C
STA_C
EE_C
Diet_no_DMI_C
Global_no_DMI_C
Observed CH4 yield (g (kg DMI)−1)
Predicted CH4 yield (g (kg DMI)−1)
0
10
20
30
40
50


NDF_C
STA_C
EE_C
Diet_no_DMI_C
Observed CH_4 yield (g (kg DMI)$^{-1}$)
Predicted CH_4 yield (g (kg DMI)$^{-1}$)
0
10
20
30
40
50


DMI_C
DMI+NDF_C
DMI+STA_C
DMI+EE_C
Diet_C
Animal_no_DMI_C
Global_C
Log observed CH_4 intensity (g (kg ADG)$^{-1}$)
Log predicted CH_4 intensity (g (kg ADG)$^{-1}$)
4
5
6
7


DMI_C
DMI+NDF_C
DMI+STA_C
DMI+EE_C
Diet_C
Animal_no_DMI_C
Global_C
Log observed CH_4 intensity (g (kg ADG)$^{-1}$)
Log predicted CH_4 intensity (g (kg ADG)$^{-1}$)
4
5
6
7