Supplementary Material

"Immune response to controlled release of immunomodulating peptides in an experimental autoimmune encephalomyelitis (EAE) mouse model", H. Zhao, P. Kiptoo,T. D. Williams, T. J. Siahaan and E. M. Topp.

This supplement presents a statistical analysis of the body weight and clinical score data given in Figures 3-5 of the manuscript. Results for each of the treatment groups (Groups 3-6, 9; Table 1) were compared with results for mice receiving i.v. injections of PBS, which serve as a negative control (Groups 1, 7; Table 1) and with results for mice receiving i.v. injections of the PLP-BPI peptide (Groups 2, 8; Table 1), which serve as a positive control. Comparison of the treatment groups with the controls was performed for data acquired during Days 10-45 of each study, the portion of the treatment phase during which differences were observed (see, e.g., Figs. 3, 4). Comparisons were performed using a t-test for independent groups, using the statistical software package Origin (ver. 6.1, OriginLab Corp., Northampton, MA). In the tables that follow, an entry of "N" indicates that there is no significant difference between the treatment group and the control on that day of treatment. An entry of "*" indicates significant difference at the $P < 0.05$ level, while an entry of "**"indicates significant difference at the $P < 0.01$ level.

Table S1. Statistical comparison of body weights for EAE mice receiving PLP-BPI in different forms[1] *(Fig. 3)*

Con
t._T
x_1
0_1
1_1
2_1
3_1
4_1
5_1
6_1
7_1
8_1
9_2
0_2
1_2
2_2
3_2
4_2
5_2
6_2
7_2
8_2
9_3
0_3
5_3
8_4
2_4
5__
1
_3_*
*_**
_**_
**_*
*_**
_**_
**_*
_**_
*_N
_N_
N_
N_

N_
N_*
_*_*
_N_
N_
N_
N_
N__
_4_*
*_**
_**_
**
**_*
*_**
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**_*
*_**
_**_
**_*
*_**
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**_*
*_**
_**_
**_*
*_*_
__5
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**_*
*_**
_**_
*_N
_N_
N_
N_
N_
N_
N_
N_
N_
N_

[1] Table entries report the significance of differences between the control (Cont.) group and the treatment (Tx) group, as indicated by the p-value. Significance: ** indicates $P < 0.01$; * indicates $P < 0.05$; N indicates not significant (i.e., $P > 0.05$). See Fig. 3 for graphical presentation of the data.

[2] See Table 1 of the manuscript for a detailed description of treatment regimens for each group. Group 1 received PBS i.v. and serves as a negative control. Group 2 received repeated i.v. injections of PLP-BPI and serves as a positive control. Group 3 received repeated s.c. injections of PLP-BPI in solution. Group 4 received repeated s.c. injections of PLP-BPI in solution with blank microparticles. Group 5 received PLP-BPI by s.c. injection together with PLP-BPI loaded microparticles. Group 6 received PLP-BPI loaded microparticles.

[3] Following initial immunization to induce disease on Day 0; see Table 1.

Table S2. Statistical comparison of clinical scores for EAE mice receiving PLP-BPI in different forms[1] *(Fig. 4)*

Cont._Tx_10_11_12_13_14_15_16_17_18_19_20_21_22_23_24_25_26_27_28_29_30_35_38_42_45__1_3_*_**_**_**_*_**_**_**_*_**_**_**_*_**_N_N_N_N_N_

N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N__
_6_*
_**_
**_*
*_**
_**_
**_*
*_**
_**_
*_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N__
2_3_
N_
N_
N_
N_
N_
N_

N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N__
_4_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_
N_ N
N

[redacted]

[1] Table entries report the significance of differences between the control (Cont.) group and the treatment (Tx) group, as indicated by the p-value. Significance: ** indicates $P < 0.01$; * indicates $P < 0.05$; N indicates not significant (i.e., $P > 0.05$). See Fig. 4 for graphical presentation of the data.

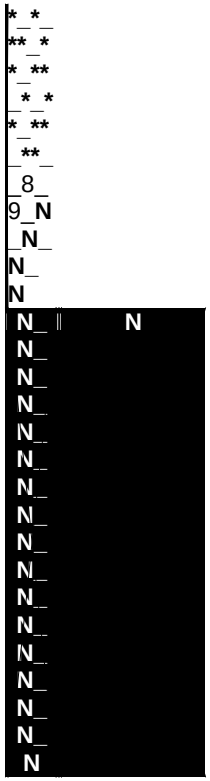
[2] See Table 1 of the manuscript for a detailed description of treatment regimens for each group. Group 1 received PBS i.v. and serves as a negative control. Group 2 received repeated i.v. injections of PLP-BPI and serves as a positive control. Group 3 received repeated s.c. injections of PLP-BPI in solution. Group 4 received repeated s.c. injections of PLP-BPI in solution with blank microparticles. Group 5 received PLP-BPI by s.c. injection together with PLP-BPI loaded microparticles. Group 6 received PLP-BPI loaded microparticles.

[3] Following initial immunization to induce disease on Day 0; see Table 1.

Table S3. Statistical comparison of body weights for EAE mice receiving PLP-BPI in different forms[1] *(Fig. 5A)*

[redacted]

Con
t._T
x_1
0_1
1_1
2_1
3_1
4_1
5_1
6_1
7_1
8_1
9_2
0_2
1_2
2_2
3_2
4_2
5_2
6_2
7_2
8_2
9_3
0_3
5_3
8_4
2_4
5_
7_9
_**_
**_*
*_**
_**_
**_*
*_**
_**_
*_N
_**_
**_*
*_**
_**_



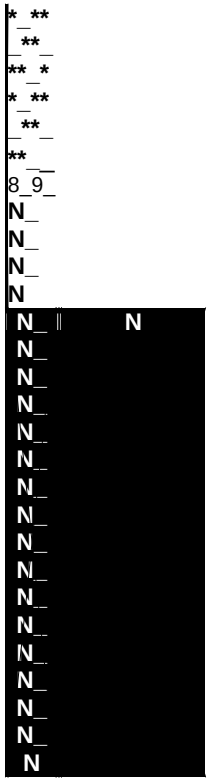
[1] Table entries report the significance of differences between the control (Cont.) group and the treatment (Tx) group, as indicated by the p-value. Significance: ** indicates $P < 0.01$; * indicates $P < 0.05$; N indicates not significant (i.e., $P > 0.05$). See Fig. 5 for graphical presentation of the data.

[2] See Table 1 of the manuscript for a detailed description of treatment regimens for each group. Group 7 received PBS i.v. and serves as a negative control. Group 8 received repeated i.v. injections of PLP-BPI and serves as a positive control. Group 9 received repeated s.c. injections of PLP-BPI in solution.

[3] Following initial immunization to induce disease on Day 0; see Table 1.

Table S4. Statistical comparison of clinical scores for EAE mice receiving PLP-BPI in different forms[1] *(Fig. 5B)*

Cont._Tx_10_11_12_13_14_15_16_17_18_19_20_21_22_23_24_25_26_27_28_29_30_35_38_42_45__7_9_N_*_*_**_**_**_*_*_**_**_**_*_*_**_**_*_*_*_*_**_*



[1] Table entries report the significance of differences between the control (Cont.) group and the treatment (Tx) group, as indicated by the p-value. Significance: ** indicates $P < 0.01$; * indicates $P < 0.05$; N indicates not significant (i.e., $P > 0.05$). See Fig. 5 for graphical presentation of the data.

[2] See Table 1 of the manuscript for a detailed description of treatment regimens for each group. Group 7 received PBS i.v. and serves as a negative control. Group 8 received repeated i.v. injections of PLP-BPI and serves as a positive control. Group 9 received repeated s.c. injections of PLP-BPI in solution.

[3] Following initial immunization to induce disease on Day 0; see Table 1.