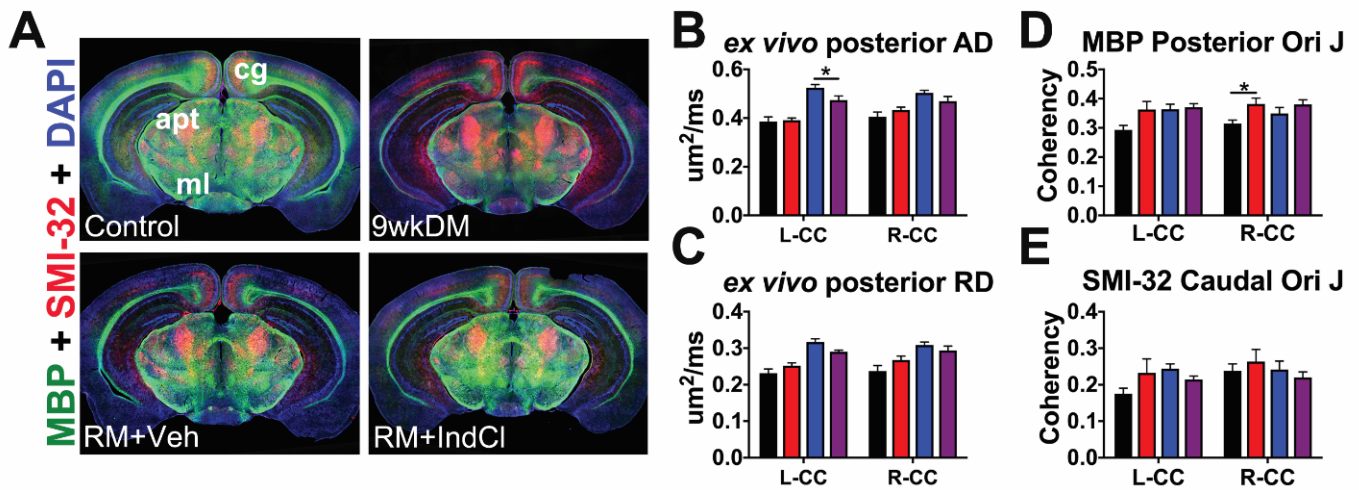


Supplementary Figures



S1: *Ex vivo* DTI shows modest differences in posterior sections.

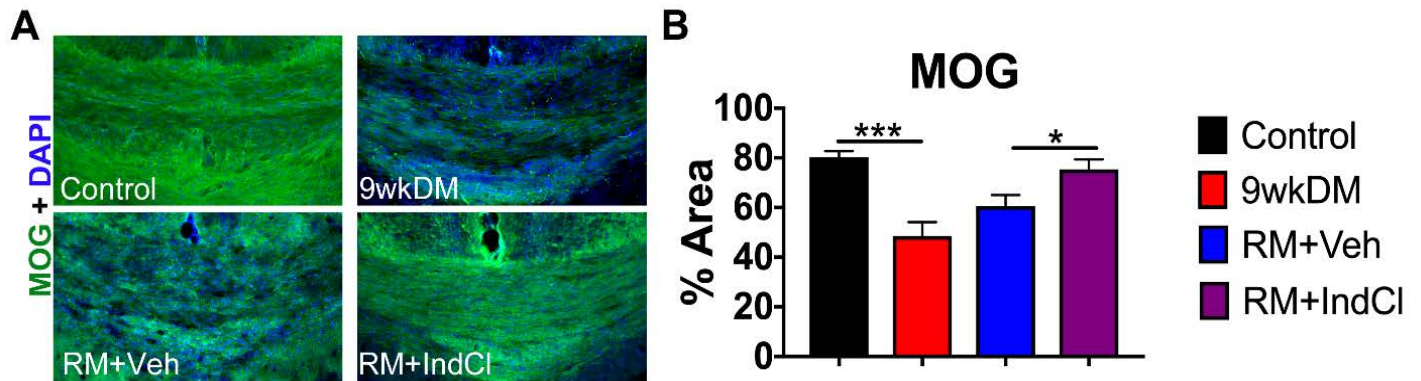
(A) 10x montages displaying coronal sections of myelin basic protein (MBP; green), non-phosphorylated neurofilament (SMI-32; red), and 4',6-diamidino-2-phenylindole (DAPI; blue). Demyelinated section qualitatively shows decreased myelin in the 9wkDM group compared to the normal group. Cg = cingulum, apt = anterior pretectal nucleus, ml = medial lemniscus.

(B) There was no difference in *ex vivo* axial diffusivity (AD) between the 9wkDM group and the control group. AD was decreased in the posterior section in the left corpus callosum (CC) in the RM+IndCl group compared to the RM+Veh group.

(C) There was no difference in radial diffusivity (RD) between the 9wkDM group and the control group or between the RM+Veh group and the RM+IndCl group.

(D) There was an increase in MBP Orientation J (Ori J) coherency in the right CC in the 9wkDM group compared to the control group. There was no difference in MBP Ori J coherency between the RM+Veh group and the RM+IndCl group throughout the CC.

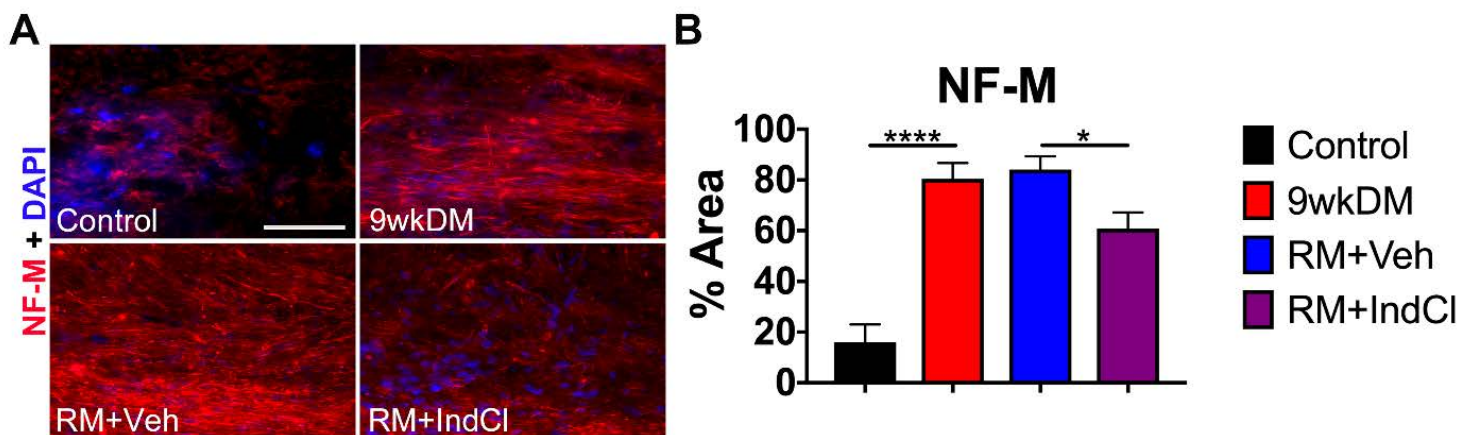
(E) There was no difference in SMI-32 Ori J coherency between the control group and the 9wkDM group or between the RM+Veh group and the RM+IndCl group. Control: n = 6; 9wkDM: n = 8; RM+Veh: n = 8; RM+IndCl: n = 8. Data are represented as mean \pm SEM. *p<0.05.



S2. RM+IndCl group increases mature oligodendrocyte glycoprotein (MOG) expression.

(A) 20x images displaying the center corpus callosum for MOG, a myelin marker. Scale bar = 50 μ m.

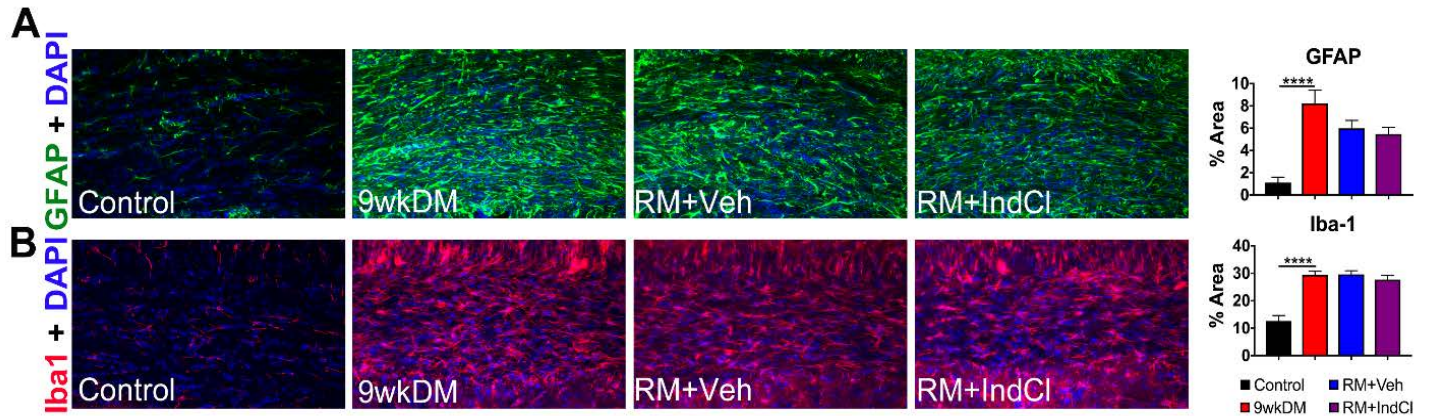
(B) There was decreased MOG expression in the 9wkDM group compared to the control group. In addition, there was increased MOG expression in the RM+IndCl group compared to the RM+Veh group. Control: n = 5; 9wkDM: n = 8; RM+Veh: n = 8; RM+IndCl: n = 4. Data are represented as mean \pm SEM. * p <0.05, **** p <0.0001.



S3. IndCl-treated remyelination group decreases neurofilament-M (NF-M) expression.

(A) 40x images for NF-M, a marker for axon damage. Scale bar = 50 μ m.

(B) There was more NF-M expression in the 9wkDM group compared to the control group. In addition, the RM+IndCl group decreases NF-M expression compared to the RM+Veh group. Control: n = 6; 9wkDM: n = 8; RM+Veh: n = 8; RM+IndCl: n = 8. Data are represented as mean \pm SEM. * p <0.05, **** p <0.0001.



S4. Increases in glial fibrillary acidic protein (GFAP) and ionized calcium-binding adapter molecule 1 (Iba-1) expression after chronic cuprizone diet.

(A) 20x center corpus callosal (CC) images representing GFAP expression from each group. There was an increase in GFAP+ cells in the 9wkDM group compared to the control group. There was no difference between the RM+Veh group and the RM+IndCl group.

(B) 20x center CC images representing Iba-1 expression from each group. There was an increase in Iba-1+ cells in the 9wkDM group compared to the control group. There was no difference between the RM+Veh group and the RM+IndCl group. Scale bar = 50 μ m. Control: n = 6; 9wkDM: n = 8; RM+Veh: n = 8; RM+IndCl: n = 8. Data are represented as mean \pm SEM. ***p<0.001.