

529 of ABCA1 concentration vs. PrP<sup>C</sup> shows a correlation of PrP<sup>C</sup> and ABCA1  
530 concentrations ( $R^2 = 0.5184$ ,  $P = .0032$ ). *Abca1* specific siRNAs 1, 2, 3, 4, the siRNA  
531 pool, and non specific siRNA are indicated by squares, triangles, circles, diamonds,  
532 pentagons and inverted triangles. Filled and open symbols differentiate the two  
533 experiments. (c) ScN2a cells were transfected with a non-specific siRNA (C), or four  
534 siRNAs individually (#1-4) or pooled (P). Lysates were PK digested and analyzed in  
535 Western blots using anti-PrP antibody. Lysates not treated with PK were used for anti-  
536 ABCA1 and anti- $\beta$  actin antibodies. A repeat of this experiment is shown in  
537 Supplementary Figure S4. Four separate cultures of ScN2a cells were treated with  
538 siRNA #3 and lysates immunoblotted with PrP, ABCA1, and  $\beta$ -actin; the results are  
539 shown in Supplementary Figure S5. (d) PrP<sup>Sc</sup> and ABCA1 concentrations are correlated  
540 ( $R^2 = 0.4781$ ,  $P < 0.0005$ ). *Abca1* specific siRNAs 1, 2, 3, 4, the siRNA pool, and non-  
541 specific siRNA are annotated by squares, triangles, circles, diamonds, pentagons and  
542 inverted triangles. Filled, open, and shaded symbols differentiate the three sets of  
543 experiments.

544

#### 545 **Supplementary Figure Legends**

546

547 **Fig. S1.** PrP<sup>C</sup> concentrations increase in proportion to 8-Br-c AMP-induced expression of  
548 ABCA1. This is a repeat of the experiment shown in Fig.4a. N2a cells were untreated (C,  
549 lane 1) or treated with the cAMP analogue 8-Br-cAMP at 1mM (lane 2), or 2 mM (lane  
550 3). Cell lysates were analyzed by immunoblotting with anti-ABCA1, anti-PrP, and anti- $\beta$ -  
551 actin antibodies as indicated.

552

553 **Fig. S2.** PrP<sup>Sc</sup> concentrations increase in proportion to 8-Br-c AMP-induced expression of  
554 ABCA1. Two experiments identical to that shown in Fig. 4c are shown. Immunoblots of  
555 lysates from untreated ScN2a cells (C, lane 1) or treated with cAMP analogue 8-Br-  
556 cAMP at 0.25 mM (lane 2), 0.5 mM (lane 3), 1 mM (lane 4), or 2 mM (lane 5). Anti-  
557 ABCA1, anti-PrP, and Anti-β-actin, anti-Cav-1 antibodies were used for immunoblotting.  
558

559 **Fig. S3.** Levels of PrP<sup>C</sup> are reduced in proportion to ABCA1 knockdown by RNAi. This  
560 is a repeat of the experiment shown in Fig. 5a. N2a cells were transfected with a non-  
561 specific siRNA (C), a pool of *Abca1*-specific siRNAs (P), or four individual siRNA  
562 probes targeting different regions in the *Abca1* mRNA (#1-4). After 72 hr, cell lysates  
563 were assayed in Western blots using anti-ABCA1, anti-Cav-1, and anti-β-actin  
564 antibodies.

565

566 **Fig. S4.** Levels of PrP<sup>Sc</sup> are reduced in proportion to ABCA1 knockdown by RNAi. This  
567 is a repeat of the experiment shown in Fig. 5c. ScN2a cells were transfected with a non-  
568 specific siRNA (C), or four siRNAs individually (#1-4) or pooled (P). Lysates were PK  
569 digested and analyzed in Western blots using anti-PrP antibody. Lysates not treated with  
570 PK were used for anti-ABCA1 and anti-β-actin antibodies.

571

572 **Fig. S5.** ABCA1 knockdown by RNAi reduces PrP<sup>Sc</sup> levels. Four cultures of ScN2a cells  
573 were treated with a non-specific siRNA (C) or ABCA1 siRNA probe #3 (#3). Lysates  
574 were PK digested and analyzed in Western blots using anti-PrP antibody. Lysates not

575 treated with PK were used for anti-ABCA1 and anti- $\beta$ -actin antibodies. These results  
576 together with those in Fig. 5c and Fig. S4 were used to demonstrate that levels of PrP<sup>Sc</sup>  
577 and ABCA1 are correlated (Fig. 5d).

Fig.S1

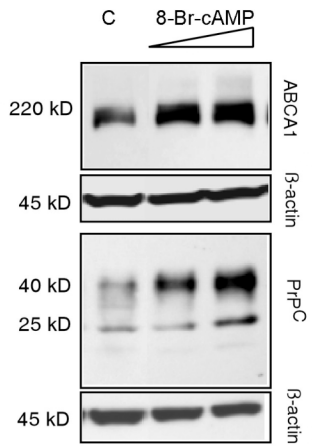


Fig.S2

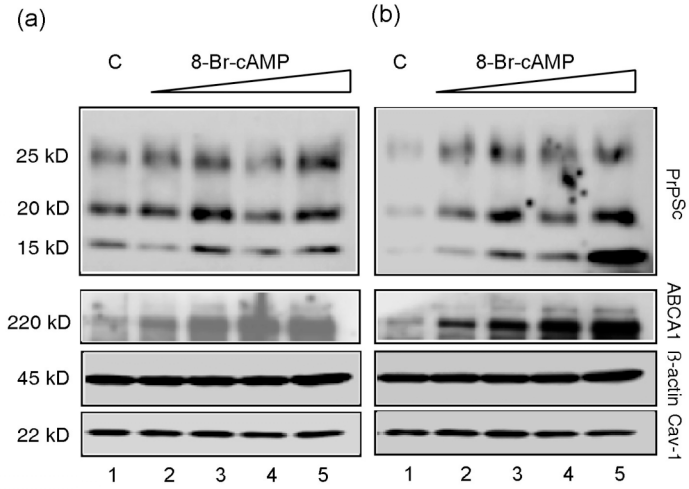


Fig.S3

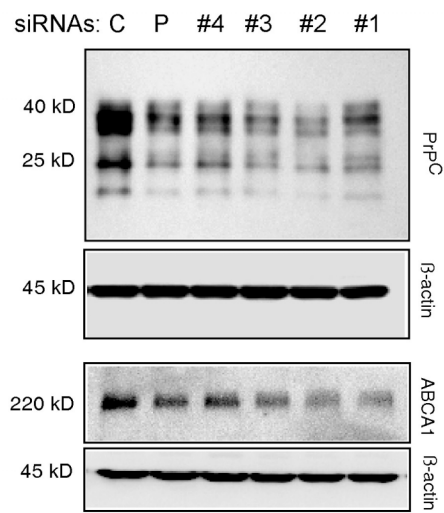


Fig.S4

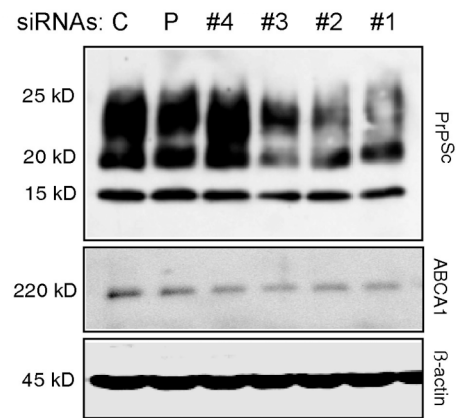


Fig.S5

