

Correction

BIOCHEMISTRY

Correction for “Heptahelical protein PQLC2 is a lysosomal cationic amino acid exporter underlying the action of cysteamine in cystinosis therapy,” by Adrien Jézégou, Elisa Llinares, Christine Anne, Sylvie Kieffer-Jaquinod, Seana O’Regan, Joëlle Aupetit, Allel Chabli, Corinne Sagné, Cécile Debacker, Bernadette Chadefaux-Vekemans, Agnès Journet, Bruno André, and Bruno Gasnier, which appeared in issue 50,

December 11, 2012, of *Proc Natl Acad Sci USA* (109: E3434-E3443; first published November 20, 2012; 10.1073/pnas.1211198109).

The authors note that within Figure 6A, a structural formula of the mixed disulfide appeared incorrectly. The corrected Figure 6 and its legend appear below. This error does not affect the conclusions of the article.

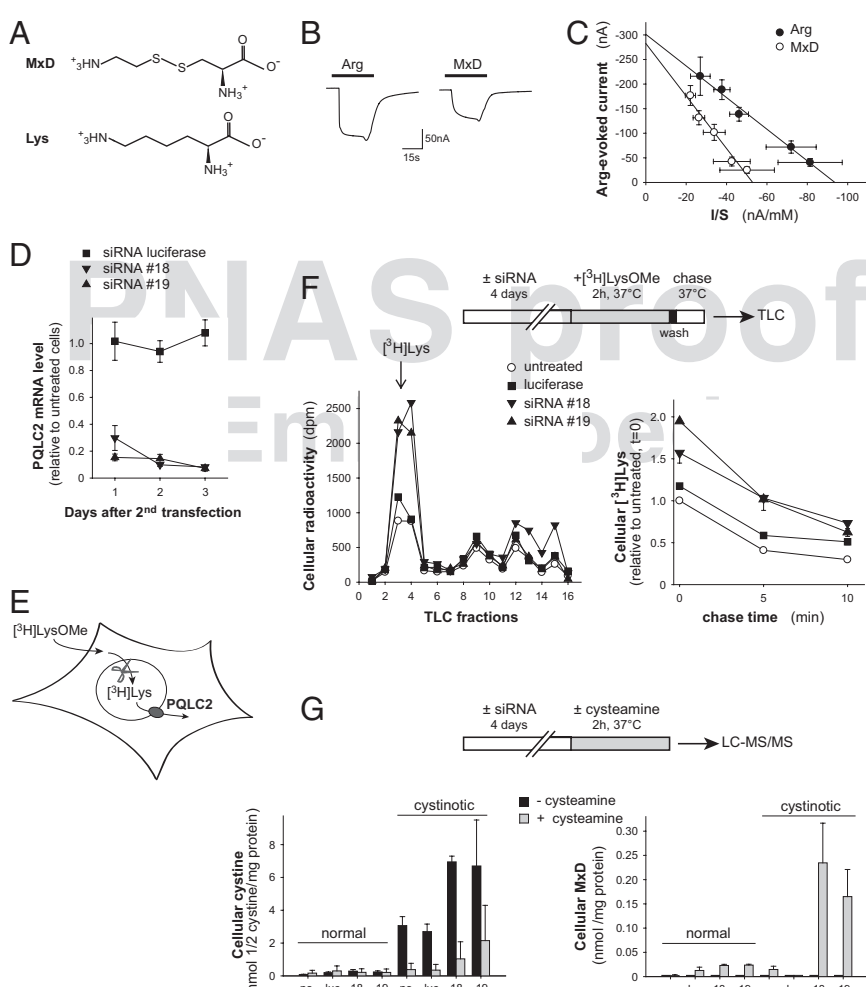


Fig. 6. PQLC2 exports a key chemical intermediate in cysteamine therapy of cystinosis. (A) Chemical structure of the MxD resembles that of lysine. (B) Current traces evoked by MxD and arginine (10 mM each) on a representative PQLC2-LL/AA-EGFP oocyte at -40 mV and pH 5.0. (C) Saturation kinetics of paired MxD and arginine responses (means \pm SEMs of five oocytes from two batches). K_m and I_{max} values are reported in the main text. I/S , current/substrate concentration ratio. (D) Kinetics of PQLC2 mRNA knockdown in human cystinotic fibroblasts after two rounds of siRNA transfection. Two PQLC2-targeted siRNAs are compared with a luciferase-targeted negative control. Means \pm SEMs of four measurements are shown. (E and F) PQLC2 gene silencing decreases the clearance of lysine from an intracellular compartment. (E) Scheme depicts how lysosomes are preferentially loaded with amino acids in whole cells using a methyl ester precursor. After loading human fibroblasts with $[^3\text{H}]\text{LysOMe}$, the fate of the resulting intracellular $[^3\text{H}]\text{Lys}$ pool was monitored by TLC. (F) Plots show representative chromatograms (Left) and representative $[^3\text{H}]\text{Lys}$ clearance kinetics (Right), respectively. PQLC2 gene silencing increases the intracellular $[^3\text{H}]\text{Lys}$ pool. (G) Effect of PQLC2 gene silencing on intracellular cystine and MxD levels. PQLC2 knockdown exacerbates cystine storage (Left) and dramatically increases the level of MxD induced by cysteamine (Right) in human cystinotic fibroblasts, as illustrated in this representative experiment (means \pm SEMs of three measurements). luc, luciferase; no, untreated.