## VASOPRESSIN-REGULATED WATER REABSORPTION Tight junction Tight junction Renal interstitium Crinary lumen Collecting duct principal cell fluid (blood) F-actin depolymerization — Basolateral membrane Apical membrane V2R AV P Dynein Microtubule Dynactin Gs Rab11 AQP2 🗗 cAMP Exocytosis Nucleus CREB Syn4 AQP2 VAMP2 NSF DNA Recycling H,O ₽Õ AQP4 O-H<sub>2</sub>O AQP2 ─ Water homeostasis AQP3 **►**O Degradation H2O Endocytosis Rab5 AQP2 AQP2 AQP2 Urinary excretion Early endosome AQP3 Tight junction H<sub>2</sub>O