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Cover picture: Model depicting how purinoceptor (P2Y₂-R) activation couples to Cl⁻ secretion in the normal and the cystic fibrosis (CF) human airway epithelia. In normal epithelium, Cl⁻ secretion is mediated by (1) CFTR in a Ca²⁺-dependent (basolateral membrane hyperpolarization) and -independent (protein kinase C activation) fashion and (2) Ca²⁺-activated Cl⁻ channel (CaCC). In CF epithelium, only CaCC-mediated secretion exists. See related article by Paradiso, A.M., C.M.P. Ribeiro, and R.C. Boucher, in this issue, pp. 53–67.