REVIEWS

Themes and Variations in ER/SR Calcium Release Channels: Structure and Function 331
Peter B. Stathopulos, Min-duk Seo, Masahiro Enomoto, Fernando J. Amador, Noboru Ishiyama, and Mitsuhiko Ikura
This review highlights recent molecular advances on the basis for inositol 1,4,5-trisphosphate and ryanodine receptor function and evolution.

Roles for the Sarco-/Endoplasmic Reticulum in Cardiac Myocyte Contraction, Protein Synthesis, and Protein Quality Control 343
Christopher C. Glombotski
This review examines the integrative functions of the sarco-/endoplasmic reticulum of cardiac myocytes in contractile calcium handling, protein synthesis, protein quality control, and the management of proteotoxic stress.

Nonequilibrium Gating of CFTR on an Equilibrium Theme 351
Kang-Yang Jih and Tzyh-Chang Hwang
This review focuses on the most recent findings on the gating mechanism of CFTR.

A Role for A-to-I RNA Editing in Temperature Adaptation 362
Sandra C. Garrett and Joshua J. C. Rosenthal
RNA editing is hardwired for cold adaptation because it creates entropy by replacing large amino acids with small ones.