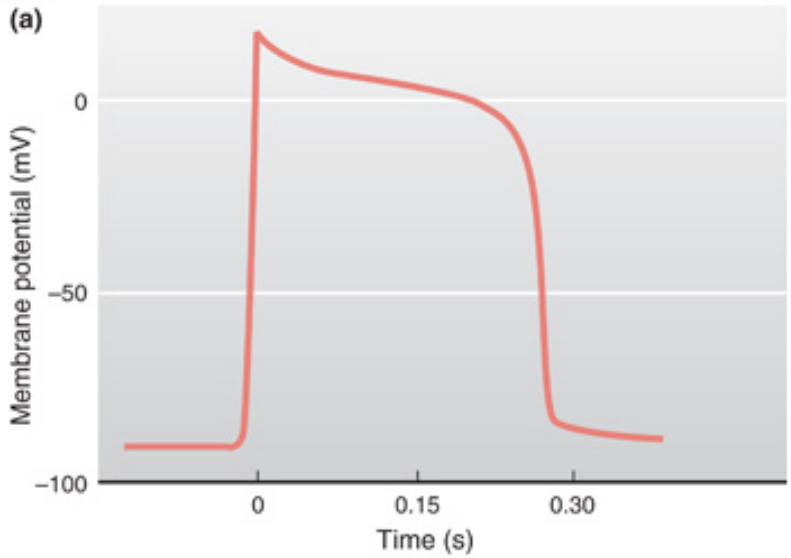

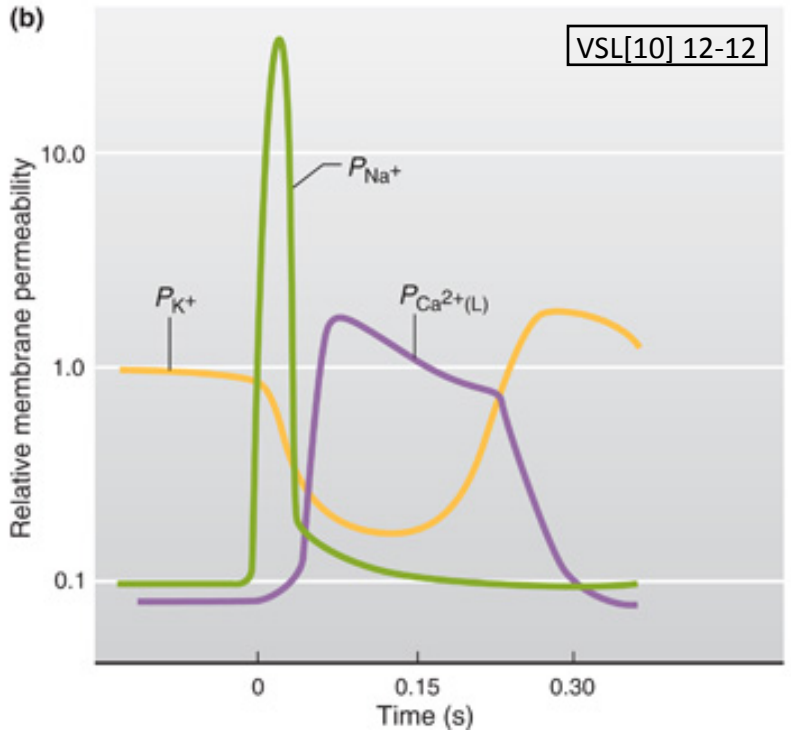

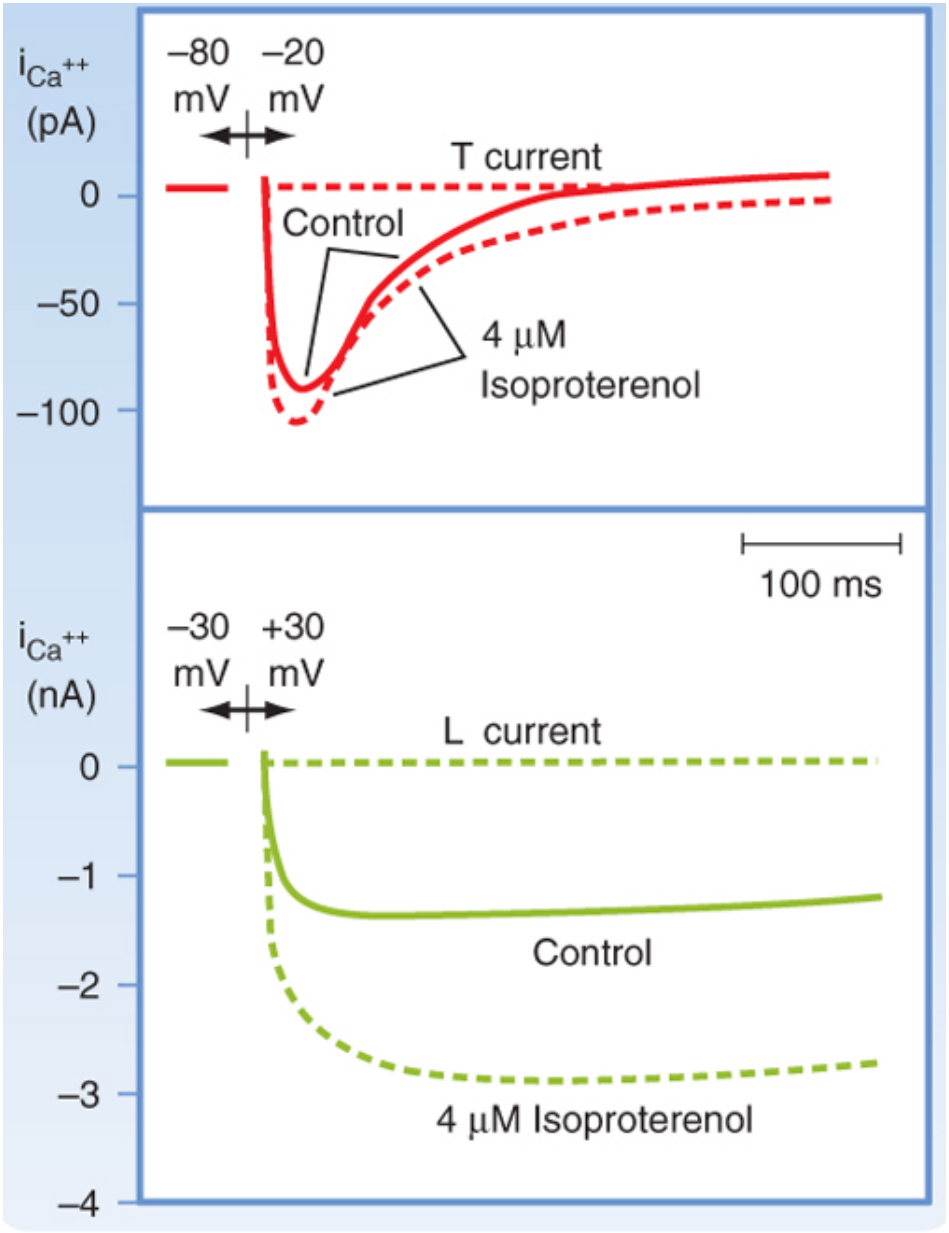

Figure 16-6 Effects of isoproterenol on the Ca^{++} currents conducted by T-type (upper panel) and L-type (lower panel) Ca^{++} channels in atrial myocytes. Upper panel, potential changed from -80 to -20 mV; lower panel, potential changed from -30 to +30 mV. (Redrawn from Bean BP: J Gen Physiol 86:1, 1985.)

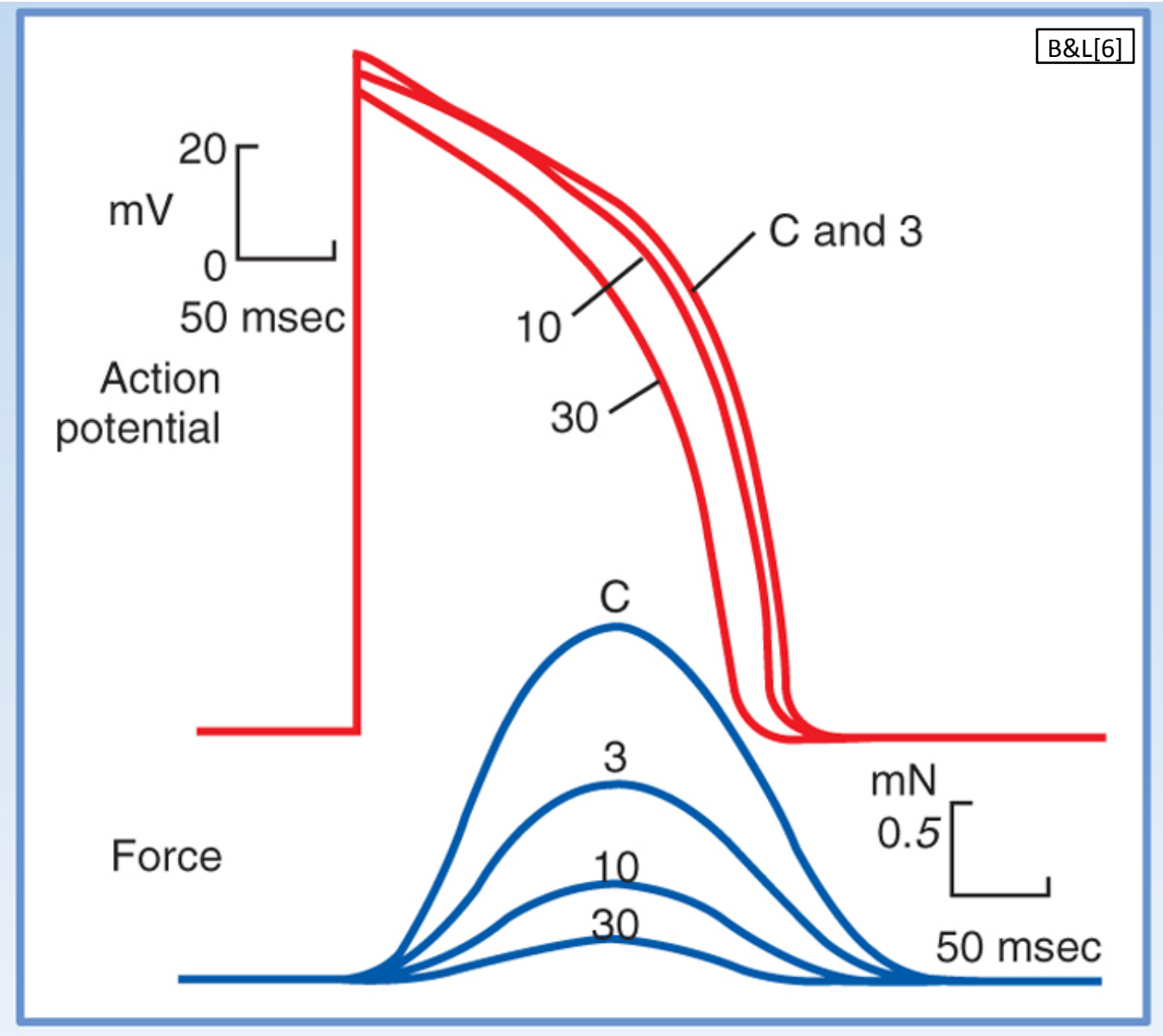

Figure 16-7 Effects of diltiazem, a Ca^{++} channel antagonist, on the action potentials (in millivolts) and isometric contractile forces (in millinewtons) recorded from an isolated papillary muscle. The tracings were recorded under control conditions (C) and in the presence of diltiazem in concentrations of 3, 10, and 30 µmol/L. (Redrawn from Hirth C et al: J Mol Cell Cardiol 15:799, 1983.)

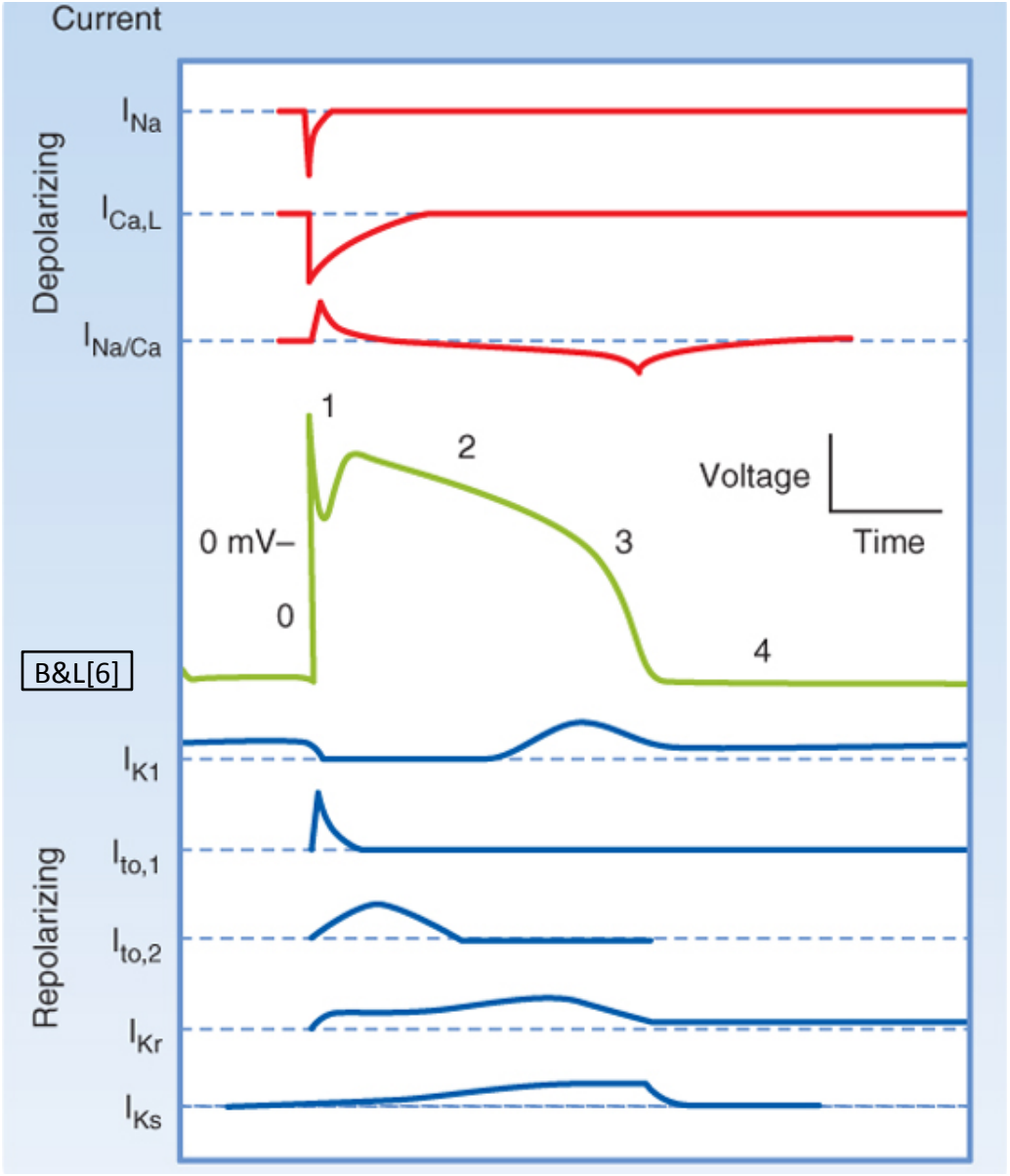

Figure 16-8 Changes in depolarizing (upper panels) and repolarizing ion currents during the various phases of the action potential in a fast-response cardiac ventricular cell. The inward currents include the fast Na^+ and L-type Ca^{++} currents. Outward currents are i_{K1}, i_{to}, and the rapid (i_{Kr}) and slow (i_{Ks}) delayed rectifier K^+ currents. (Redrawn from Tomaselli G, Marban E: Cardiovasc Res 42:270, 1999.)

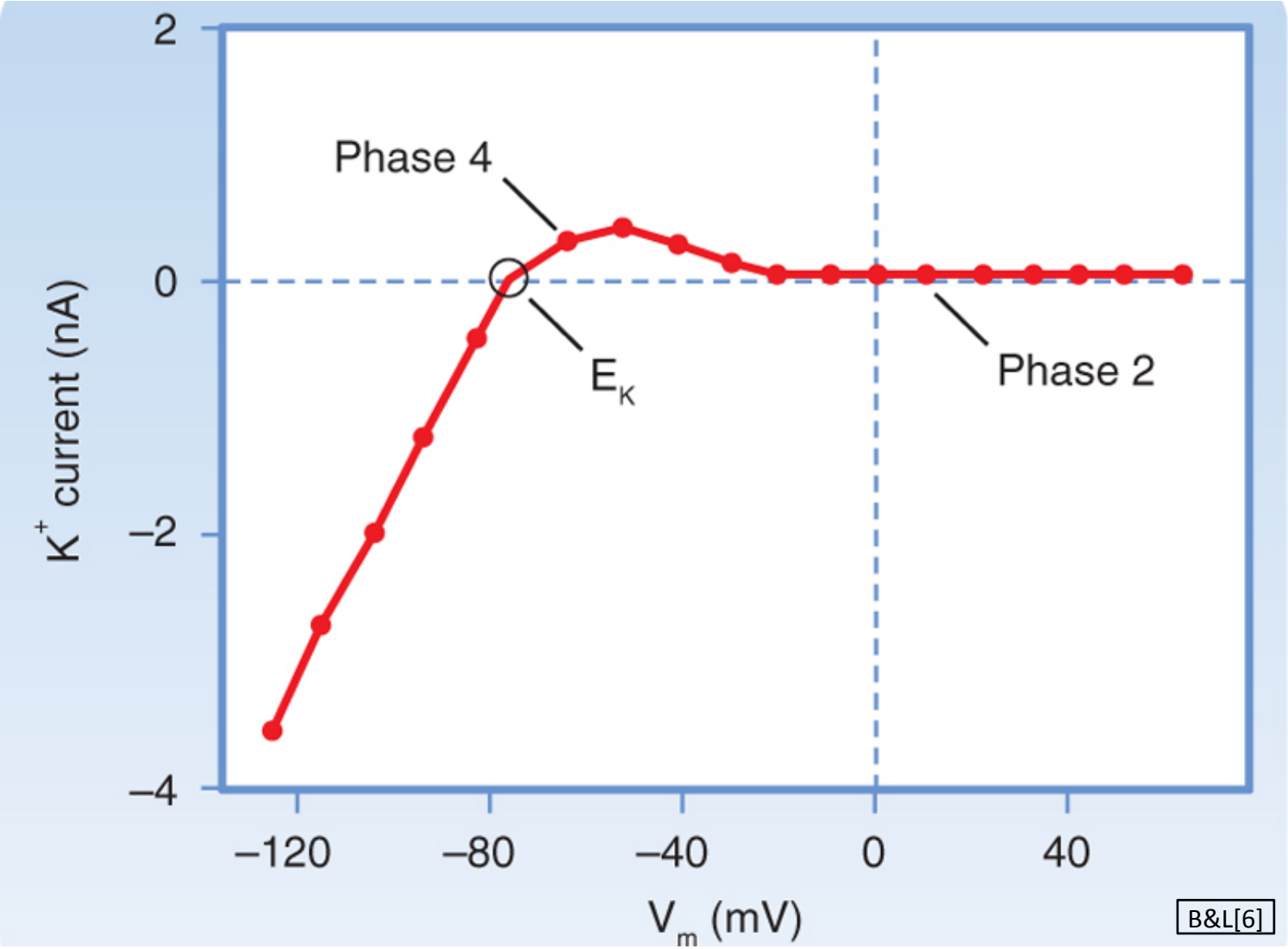

Figure 16-9 Inwardly rectified K^+ currents recorded from a ventricular myocyte when the potential was changed from a holding potential of -80 mV to various test potentials. Positive values along the vertical axis represent outward currents; negative values represent inward currents. The V_m coordinate of the point (open circle) at which the curve intersects the x axis is the reversal potential; it denotes the Nernst equilibrium potential (E_K), at which point the chemical and electrostatic forces are equal. (Redrawn from Giles WR, Imaizumi Y: J Physiol [Lond] 405:123, 1988.)

END

Video 2, Module 6