



**FIGURE 18-10** Examples of types of measurements made for the analysis of axon outgrowth. The pseudocolored images in the middle are single confocal pictures of the distal segment of an axon and its growth cone at different points in time. The black lines on the right of each image illustrate the kind of measurement used to calculate axonal extension: the outline of an axon is followed from a stable measuring point to the most distal tip of the growth cone. The lines on the left of each image illustrate the measurements used to calculate growth cone activity: in this case, all visible side branches and filopodia were incorporated in the measurements. The scale bar represents 10  $\mu\text{m}$ .