

## SELECTING THE MEDIA

If you were performing this mapping procedure as an actual lab experiment, you would need to make up appropriate selection media that would (a) kill off the donor cells while leaving the recipient cells, and (b) distinguish between the various alleles as they are transferred to the recipient cells.

As discussed in the introduction, donor cells would be killed by adding streptomycin to all of the media. Then, in order to learn whether each allele of interest has been transferred at each particular time, you need to have media that contain appropriate combinations of amino acids such that you will be able to decide whether or not a particular allele has been transferred. (As noted earlier, you could map other types of alleles also, but in that case you would vary, for example, the sugar composition of the medium rather than the amino acid composition.)

Because this experiment is being performed as a computer simulation, you will not be required to perform the onerous task of making up and plating out the different media. However, you still need to decide *which* amino acids you would have to either add or leave out to make up your plates. We have given you a hint

below, by indicating that you will need four different plates for each time point, with different combinations of amino acids corresponding to the genes you have chosen to map out. Nevertheless, you still have to decide what the correct combinations are. Choose the appropriate amino acids below by clicking on each amino acid to indicate whether or not you want to add it to the medium (a check mark indicates that it will be added, while a blank indicates that it will be left out).

When you have selected the appropriate media for your experiment, click 'continue' to go on to the next stage of the experiment.