

Name \_\_\_\_\_

Course/Section \_\_\_\_\_

Date \_\_\_\_\_

Professor/TA \_\_\_\_\_



### Activity 18.1 How is gene expression controlled in bacteria?

Fill in the chart to organize what we know about the *lac* and *trp* operons.

Operon:	<i>lac</i>		<i>trp</i>	
Is the metabolic pathway anabolic or catabolic?	<i>Catabolic</i> <i>Breaks down lactose</i>		<i>Anabolic</i> <i>Synthesizes tryptophan</i>	
What regulatory genes are associated with the operon, and what functions does each serve?	Genes:	Functions:	Genes:	Functions:
What structural genes are included in each operon, and what does each produce?	Genes:	Products:	Genes:	Products:
Is the operon inducible or repressible?				
Is the repressor protein produced in active or inactive form?				
The repressor protein becomes active when it interacts with:				