

What's Happening in the Brain?

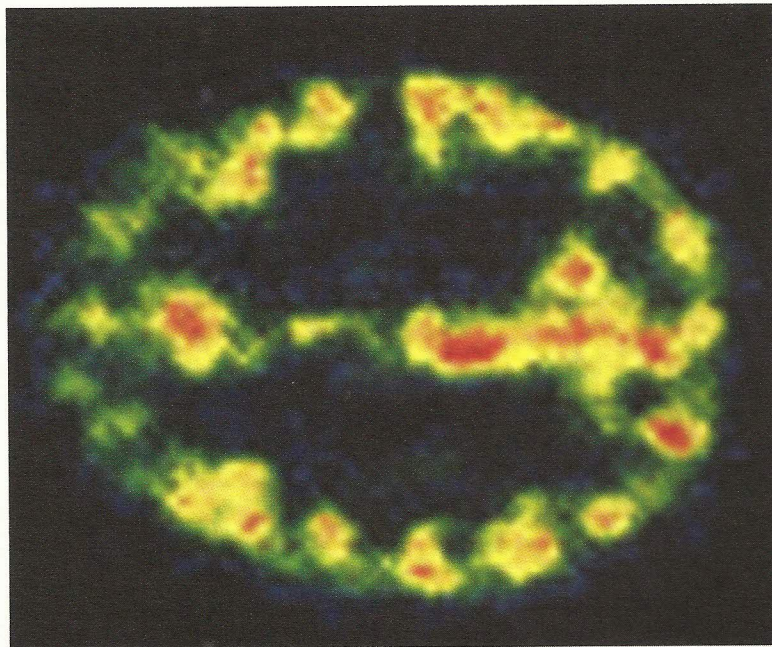
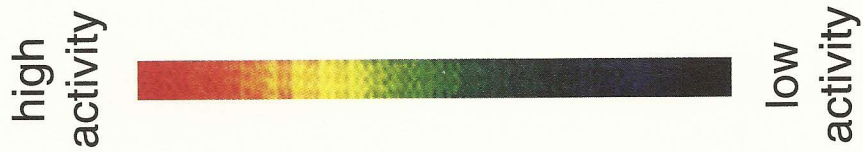


image 2

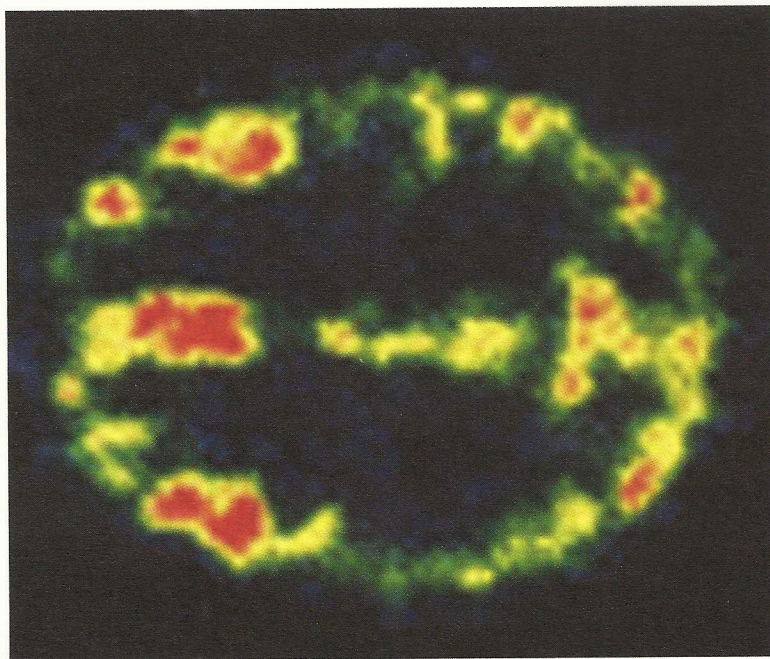


image 1

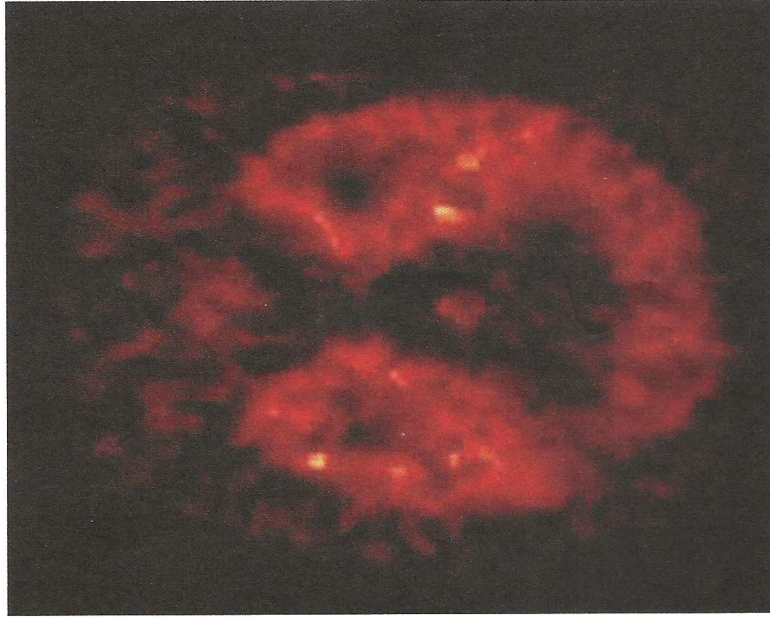
Looking Inside the Brain

ability to use a
specific brain
chemical

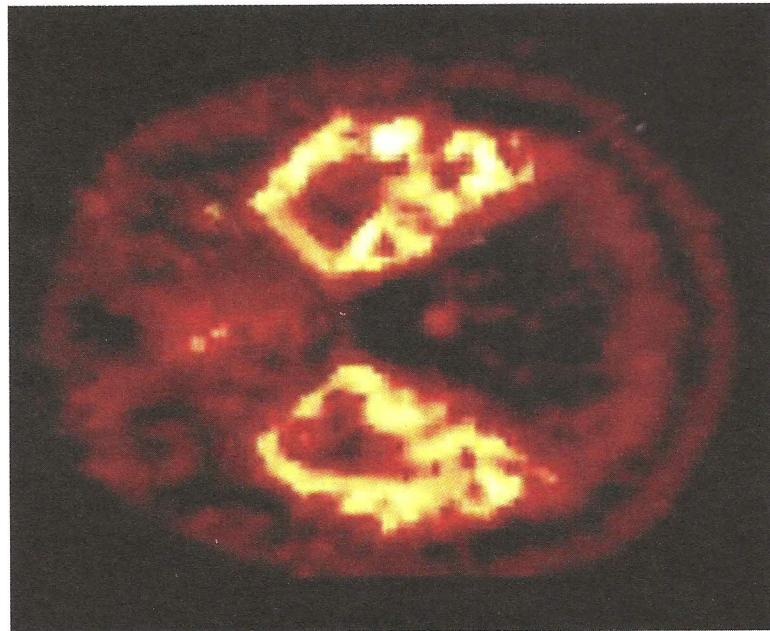
high



low



with
depression



without
depression

The Brain's Response to Treatment

The scientists who took these PET images of people with depression wanted to see whether treatment makes the brain work more like the brain of someone who does not have depression. Before they could look at the effects of treatment, however, the scientists needed to know what differences there are in the brains of people who have depression compared with the brains of people who do not have depression. The scientists investigated and found out that some parts of the brain are less active in people who have depression, and some are more active. Knowing which areas of the brain in someone who is depressed can be less active and which can be more active allowed the scientists to make sense of the PET images showing brain changes after treatment.

These images, which look at areas of the brain that become less active with treatment, use color differently from how it was used in the images you looked at earlier in this unit. In these images, color highlights the parts of the brain that have different activity levels after treatment compared with before treatment. As you can see on the scale bar, red indicates the largest decrease in brain activity and yellow, a lesser decrease in brain activity. Areas of the PET images shown in color are the areas that decrease in activity after treatment. That means that the treatment caused the brain to be more like that of a person who does not have depression.

