

**Models for Human Biology**  
**Segal Boaz, Las Positas College**

I would like to thank the C.A.R.E, the Chabot-Las Positas Association of Retired Employees for their CARE Fund Special Projects Grant Program. This year I requested and obtained funds to provide two human torso models for BIO 20: Contemporary Human Biology, which at the time had no dedicated materials. The course is a lecture-only non-majors class, which therefore necessitates innovative teaching practices to improve learning outcomes for students. The two new models have helped students to move away from the two-dimensional photos in the textbook to the actual three-dimensional arrangement of the organs in the body.

Students' learning was improved when studying human body systems with these hands-on models they could pull apart and put back together. They can use these models to better see the relative sizes of the different organs and their orientation with regards to one another. They are especially helpful for the digestive system. For instance, in a textbook picture it might appear that the esophagus goes into the liver because of where it sits in the abdominal cavity. These models have helped us avoid this common type of misconception due to flat images instead of 3D models. Another particular benefit from these models can be seen when teaching about the endocrine system. This semester the instructor using the models for BIO 20, Amy Chovnick, required that each student had to study the feedback loop of a different hormone, and had them identify the place where that hormone is made. It is very clear from the model where all the glandular tissues lie because they look similar in color and texture: students could identify the pituitary gland or the thyroid gland much more readily than with using paper diagrams.

These two particular examples demonstrate the improvements in learning for students with the use of the human torso models purchased with the aid of your Care Grant funds. We greatly appreciate that you have provided these funds to enable us to better support our students.

