



**CALIFORNIA STATE SCIENCE FAIR  
2013 PROJECT SUMMARY**

|   |                                       |
|---|---------------------------------------|
| <b>Name(s)</b><br>Yevheniya Shevchenko  | <b>Project Number</b><br><b>S0323</b> |
| <b>Project Title</b><br><b>The Effect of Different Glues on Holding Cuts in Pigskin</b>   |                                       |
| <p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b><br/>The objective of my project was to test the strength of different glues on holding 5cm incisions in store bought pigskin closed when stretched.</p> <p><b>Methods/Materials</b><br/>In my experiment I had 8 slices of pigskin, which were store bought, I then made 5cm incision in them. Then I took 8 different glues which were E 6000 glue, 527glue, G-S hypo glue, school glue, Krazy glue, superglue (gel), superglue (quick fix), and vetbond adhesive and glued each incision with a particular glue. I then left the glues to dry for 24 hours and the next day I stretched all the pigskins using a mechanism I made.</p> <p><b>Results</b><br/>In the data I collected the superglue (quick fix) was the strongest and lasted up to 3000g and still didn't rip. The Krazy glue and the Vetbond adhesive lasted up to 2000g. The superglue (gel) ripped at 650g. The other four glues, E 6000 glue, 527 glue, G-S hypo glue, and school glue ripped under 500g.</p> <p><b>Conclusions/Discussion</b><br/>I can conclude that store bought glue can be used to close cuts in pigskin and that if superglue was less toxic it could be used to close incisions made in human skin depending on the size of the wound and how deep it is.</p> |                                       |
| <b>Summary Statement</b><br>In my project I took store bought pigskin and using various glues, closed the incisions I made in them to test the durability of glues that are similar to ones used in surgery.  |                                       |
| <b>Help Received</b><br>Mother helped cut pieces of store bought pigskin; Mrs. Ramirez-De La Cruz helped come up with project idea and provided the necessary material for stretching procedure   |                                       |