



SOCIETY OF PHYSICS STUDENTS

An organization of the American Institute of Physics

Marsh White Award Report

Project Proposal Title	A Visit to St. Jude Children's Research Hospital's Target House
Name of School	Rhodes College
SPS Chapter Number	5940
Project Lead (name then email address)	Edoardo Draetta drael-16@rhodes.edu
Additional Project Leads (two lists: names then emails)	Eleanor Hook Hooeb-18@rhodes.edu Phoebe Sharp sharpc-18@rhodes.edu
SPS Chapter Advisor	
Total Amount Received from SPS	[Should be \$300.00 or less.]
Total Amount Expended from SPS	[Should be \$300.00 or less.]

Summary of Award Activities

Rhodes College SPS visited St. Jude Children's Research Hospital for a miniature science carnival. The event was held at Target House, the hospital's housing for long-term patients. When we set out to plan this event, we wanted to use the opportunity to enable an enduring relationship with the facility, its members, and its patients. Because of this, we were delighted to be invited to Target House for an impromptu event separate from our planned full-scale carnival. To continue the trend past this school-year, SPS has been invited to bring demonstrations for summer-time activities.

Statement of Activity

Overview of Award Activity

The science carnival at Target House followed the common and trusted “tabled demonstrations” format. We brought science demonstrations that were each placed at their own station, giving the audience freedom of choice. This is how we choose to structure most outreach events that aren’t in a classroom. Because of this, the preparation was mostly unhindered.

Target House functions as a kind of hotel for patient families, meaning that not only did we entertain patients, but also their families. Our target audience was broad for this reason. A 6-year-old was just as likely to walk up as a 40-year-old. Of course, the all age ranges were thrilled to learn our science, proving once more that science is fun at all ages.

Impact Assessment: How the Project/Activity/Event Promoted Interest in Physics

We hoped to bring enjoyment to the patients of Target House.

- This was our greatest achievement. In particular, our oobleck speaker caught crowds of ten people at a time.

We hoped to bring not only fun, but also education.

- This, as always, is achieved through meetings with professors. The concept of flux trapping is difficult enough to understand, let alone explain. It is thanks to the professors that we were able to learn and teach our topics. On top of that, it is thanks to the volunteer’s individual efforts to become informed that the audience was able to converse with us about the awesome applications and broad uses of the physics in question.

We hoped to create a relationship with Target House through our event.

- We succeeded in creating momentum, which was very important to the original motivation of this project. Thanks to this event, we are now lined up for several more events at Target House.

Key Metrics and Reflection

Who was the target audience of your project?	Visitors and residents of Target House
How many attendees/participants were directly impacted by your project? Please describe them (for example “50 third grade students” or “25 families”).	15 families (30 adults) (30 children)
How many students from your SPS chapter were involved in the activity, and in what capacity?	5
Was the amount of money you received from SPS sufficient to carry out the activities outlined in your proposal? Could you have used additional funding? If yes, how much would you have liked and how would the additional funding have augmented your activity?	Yes! In order to use additional funding, we would have had to create a larger-scale event.
Do you anticipate repeating this project/activity/event in the future, or having a follow-up project/activity/event? If yes, please describe.	Yes, we will continue our relationship with Target House in the form of frequent outreach.
What new relationships did you build through this project?	Specifically, we met Megan Jones, the event coordinator of Target House. More broadly, we now have the ability to meet and interact with their fantastic staff.
If you were to do your project again, what would you do differently?	We would schedule a time when we know there will be more participants.

Press Coverage (if applicable)

Expenditures

Expenditure Table

Item	Cost
Tablecloths x 5	19.95
Ball bearing for double pendulum	42.66
LEDs for double pendulum	1.49
Shipping and handling	25.00
Catering	180.00
Liquid Nitrogen	10.00
Total of Expenses	279.10

We used tablecloths to prevent disastrous messes from our oobleck giveaway for our event. The double pendulum is going to be used for our summer event with Target House, which will take place in July 2015. For that event, we want to cater food in order to draw a bigger audience.

Activity Photos

Note: Target House did not allow photography of patients.



Our four on-the-spot volunteers. From left to right: Phoebe Sharp, Abel Diaz, Connor Scanlon, Edoardo Draetta.



Abel and Connor unloading science stuff from our science truck!



If you have any questions, please contact the SPS National Office Staff
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CONCLUSION OF RHODES SPS 2014-2015 MARSH WHITE AWARD: MAD SCIENTIST NIGHT
Supplemental report submitted September 11, 2015

Due to our success with our first SPS outreach event at St Jude Children’s Target House, we were asked to return. For this following event we had two goals: gathering more attendees through the coercive power of food, and creating a brand new demonstration. Unfortunately, though the catering of Memphis-style barbecue brought a large crowd to our event, we were unable to build the double pendulum in house and *thus cancelled our order for the parts*. This was unforeseen—our physics building was under construction, resulting in our machine shop being out of commission for 6 months longer than expected. However, this hurdle proved ineffective at halting the enjoyment of the attendees—simple coke and mentos was a show-stopper.

We called our event Mad Scientist Day, as per suggestion of the event director at Target House. We took a total of eight demonstrations: a vacuum chamber, a Chinese singing bowl, quantum levitation (flux trapping in a superconductor), Oobleck, Coke and Mentos, diffraction glasses, the light polarization demonstration from the 2014-15 SOCK, and Sun-spotters. Ten SPS members, as well as one of our Rhodes professors, participated, making this a very successful event. We were able to give the children and their parents diffraction glasses as a handout, and they found all of the demonstrations very interesting. Quantum levitation, the singing bowl, and the vacuum chamber in particular kept the children's interest until the very end; some of them tried the singing bowl with varying success.

An estimated 70 people attended our event. We ordered food from Central Barbecue for only 30 people, yet we did not run out of food. The presence of food brought a lot more patients than we had for our previous event. In that event, our bulk numbers came from relatives of patients. In this one, a large number of those undergoing treatment attended as well. It is likely that our attendance will only improve as we gather the reputation of the “Science and Food” people. The price of the food was a little staggering, but it made a huge difference.

All in all, Mad Scientist Day brought a lot of joy to Target House and we have been asked to help with more events in the future.

ITEM	COST
Catering	252.37
Ball bearing for double pendulum	42.66
LED’s for double pendulum	1.49
Shipping and Handling	25.00
Liquid Nitrogen	10.00
TOTAL	262.37
TOTAL (COMBINING WITH PREVIOUS)	292.32