

**UNC Research Core Facilities Staff Recognition  
Program : Entry # 52****Nominator (Your) Name**

Patricia Basta

**Nominator (Your) Position Title**

Faculty director

**Nominator (Your) E-mail Address**

patricia\_basta@unc.edu

**Nominee Name**

Cortney Pylant

**Nominee Position Title**

Facility Manager

**Nominee E-mail Address**

cpylant@email.unc.edu

**Please list the core facility in which the person you are nominating works**

BioSpecimen Processing Facility

**Please list the School affiliated with the core facility**

School of Public Health

**Award Category**

Performance Excellence

**Reason for Nomination**

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- Skill improvement

- o Cortney learned multiple new lab skills this year to service requests from both new and old clients. For the most part all these new skills were self-taught with minimal input by the faculty advisor. Cortney launches into learning new methods with a great deal of passion. She learned multiple tissue cultures skills serving a Covid related study of patients with IBD. She researched various methods for cryopreservation that would be most appropriate for this project and discussed these with the PI and his collaborators. In order to provide this advice Cortney first needed to verse herself on tissue culture and cryopreservation theory before being confident to offer advice. In addition to cryopreservation this project required specialized isolation of Peripheral Blood Mononuclear Cells (PBMC) from specialized blood tubes received via FedEx under non-optimal conditions. Cortney worked with other lab members and the vendor to pilot various conditions for isolation and came up with a plan that worked for the project. In addition, we needed to count the cells isolated before cryopreservation. In the past we had used manual counting with a hemocytometer using a microscope owned by another lab. This microscope was not working well. Cortney took as much of it apart as she could and cleaned it thoroughly. Unfortunately, this did not resolve the problems and Cortney researched low-cost automated cell counters and we were able to make this purchase. This project is now working smoothly with Cortney's leadership.

- o Another project which required procedures that the BSP had not ever performed, bisulfite conversion and retore reactions, for methylation analysis of DNA extracted from FFPE tissues was also taken over by Cortney. She researched the issues involved and contacted labs that previously performed these protocols and worked up our specific SOP. Successfully methylation analyses were performed, which was a testimony to Cortney's perseverance mostly because of the difficulty and the amount of DNA that can be extracted from FFPE.

- o Finally, Cortney had never been involved in working on a grant application however just recently the BSP responded to an RFA put out by NCI/Leidos. Cortney's expert editing of the drafts greatly improved the submission. She also performed all the formatting. Finally, she developed the Gantt chart and the timeline figures for the submission.

- Enhance Rigor and Reproducibility Initiatives

- o Cortney has been the main architect of all policies and procedures needed to maintain our College of American Pathologists (CAP) accreditation. On her own she developed our staff competency assessment forms, protocol checklists, and freezer temperature mapping procedures. She has also performed meticulous annual reviews of all our SOPs.

- Pioneering a multi-core pipeline project

- o Cortney provided the leadership for keeping two multi-lab/core facility projects moving forward.

The first involved a large blot spot project of samples collected in Malawi where eluates are to be measured on two separate ELISA assays. She worked with the PI and the collaborator to work out the overall project flow. Without Cortney's perseverance the pilot project would not have gotten off the ground. To conduct the pilot Cortney worked with the HIV/STD Laboratory Core director to work out several different elution protocols to try. Based on the pilot an SOP was finalized and the study was set to begin. Cortney then began setting up runs and quickly realized that the inventory of the blood spots conducted by the collaborating lab were vastly incorrect. She worked with the collaborators and set up a plan to clear up the discrepancies. The first run of the real study is now underway. Without Cortney's leadership the project would not be as far along as it is.

The second involved the methylation project mentioned above. Cortney acted as the liaison between the PI, our lab and the MGC core.

- Training other Staff

- o One of Cortney's main duties is working out new protocols, which she performs on a routine basis. After vetting the procedures, she prepares detailed SOPs and trains other full-time staff.

- o Finally, we have two exceptional work-study students and Cortney realized their potential early on and has trained them on several sample processing protocols. She is an exceptional trainer. She informs them of details that others take for granted and always explains the theory behind the protocols thoroughly.