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## Annual Progress Report: October 1, 2014 – September 30, 2016

**Senior Personnel:** Edgardo Sanabria-Valentín, Frances Jiménez, Raquel Castellanos, Ronald Pilette, Anthony Carpi, Nathan Lents, Lawrence Kobilinsky  
**Other Personnel:** Leslie-Porter-Cabell, Eric Dillalogue, Patricia Samperi, Derek Sokolowski

**Report Date:** June 2016

As detailed in our first annual progress report dated 2006-2007, PRISM was established in fall 2006 to promote the expansion of undergraduate research in the science programs at John Jay College of Criminal Justice of The City University of New York (CUNY). In that first year, thirteen students shared in \$21,000 of funding. Now having completed its tenth year of operation, the program has greatly expanded and has had a profound influence on promoting undergraduate science research at the College. Since 2006, **almost 200 undergraduate researchers and over 30 faculty members at John Jay and our partner community colleges** have benefitted from the opportunities PRISM provides them: mentored research with a John Jay faculty member, stipends, travel allowances for professional conferences, research supplies, state-of-the-art research instrumentation, professional advisement, seminars, professional development activities, and other benefits. Of these, **27** students have transitioned to John Jay and PRISM from our CUNY Justice Academy (CJA) partners, a group of five CUNY community colleges that prepare students for our Forensic Science program, and 16 of these have been actively involved in research at John Jay and at their community colleges. **Sixty eight** of our alumni are enrolled or have finished post-graduate professional programs in Science, Technology, Engineering, and Math (STEM) and health-related fields. Most importantly, all of them have greatly benefitted from the mentorship provided by faculty members of the Sciences, Math and other Departments here and at our CJA partner schools.

Over the last year, PRISM has expanded and restructured. In July of 2015 we were awarded a “Collegiate Science and Technology Entry Program” (CSTEP) grant from the New York State Education Department. The purpose of this grant is to expand the academic services provided to our students by providing academic and financial support to eligible students. To better organize our administrative efforts, PRISM now functions as an umbrella that covers various initiatives. Early career students, not yet paired in research mentorship, are part of our Junior Scholars Program (JSP), which is fully funded by CSTEP. PRISM JSP students receive targeted academic advisement, group study sessions organized by the MSRC, and attend professional and academic development workshops throughout the year. The renamed, PRISM Undergraduate Research Program (URP), continues our successful efforts to pair students with mentors and prepare them for post-graduate education. We continue to support students coming to John Jay’s science majors through the CUNY Justice Academy, a cohort we call the CJA-FOS, by providing help during the transition process, academic advisement, and encouragement to participate in mentored research experiences at their community colleges and at John Jay once they transition.

As we near our 10th Anniversary, we would like to take this opportunity not just to update on what we did over the last two years year, but also on the impact PRISM has had since its beginnings, and what we hope to accomplish next. PRISM has been, without doubt, a group effort that demonstrates what can be accomplished when educators are given the right tools and the support by an institution that believes in its students and is willing to go the extra mile for (and with) them. **We hope you will join us in the Spring of 2017 as we celebrate our Tenth Graduating Class.**

## 2014-2016 Year Progress

In the 2014-2015 academic year, forty-five students shared in **\$106,075** of stipend support, \$60,165 in materials and supplies support, and \$28,419 in travel support (Fig. 1). In the 2015-16 academic year, fifty-five students received over \$174,000 in stipends, \$12,920 in travel and \$137,409 in research supplies. In addition, over \$500,000 was made available through

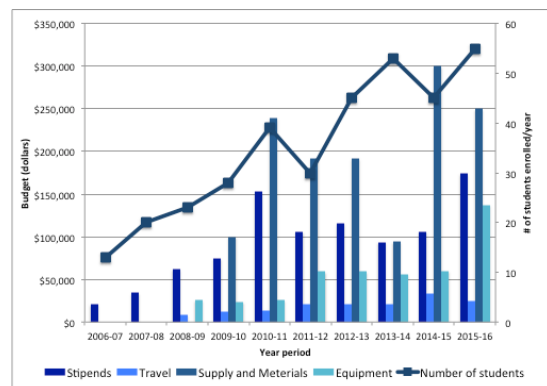


Figure 1. PRISM Budget Details, 2006-2016

PRISM to faculty and students in the Department of Sciences from the over this two year period to update and upgrade research equipment used for research mentoring. Mentors also received \$16,102 in travel support to accompany their mentees to research conferences from the fall of 2014 to the fall of 2016. Over 50 students are expected to have participated in our research training courses during the 2014-2016 period, and most have joined the PRISM ranks of undergraduate researchers since. Additionally, many more John Jay College science majors and students from several CUNY community colleges were exposed to PRISM and the possibilities for undergraduate research via attendance at one or more PRISM events held throughout the year. Dozens of parents, college administrators, departmental faculty, and members of the public attended various PRISM events, each headlining PRISM student presentations of their research efforts.

Over the last ten years, PRISM has invested **over three million dollars** in our students, faculty, and in building a research infrastructure at John Jay College (Fig. 1). These funds have allowed the College to obtain or update scientific equipment that has increased the capabilities of our institution to perform novel research in more diverse fields than ever before. It has also increased the visibility of our students, the Program, and the College nationally by supporting travel to research conferences where our undergraduate researchers communicate their findings, and by allowing our faculty members to publish their research with students in peer-reviewed research journals. Most

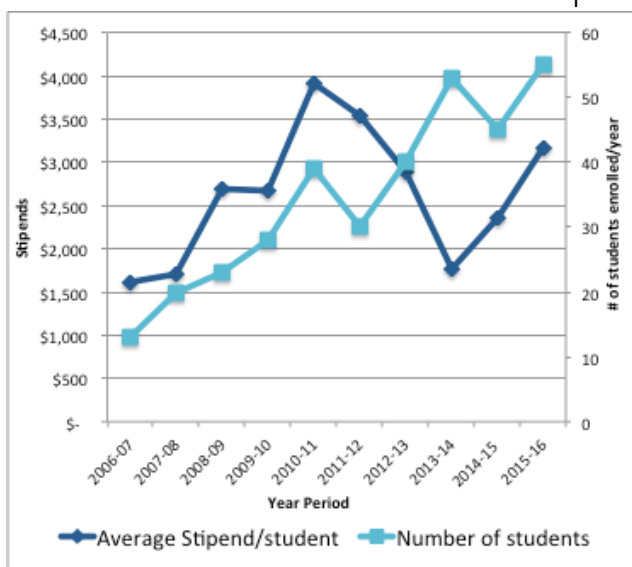


Figure 2 Number of undergraduate researchers in PRISM and average yearly stipend, 2006-2016

importantly, it has allowed our students to spend more time dedicated to their studies and research by providing stipends to remove the pressure that most students have to work outside of the College. These funds have increased the quality of research performed by our students and the popularity of the Program among Forensic Science students. About one third of graduates from the major participate in in-house research through PRISM.

The quality of undergraduate

research continues at a high level. Students engaged in research averaged well over 400 hours in their time commitment. Each of those who received college credit for research has performed at least 400 hours of mentor-supervised research. Many students are authors or co-authors of research published this past year or in-press, as noted in detail at the end of this report. As a matter of fact, about **28% of PRISM students are listed as authors or co-authors on publications** as a result of their under-graduate research, an impressive number given that the **average reported by other undergraduate research programs is 9-10%**. The popularity of the Program and the increase in the number and quality of PRISM undergraduate researchers has put more pressure on the resources that the program requires. Although the **average stipend our students received from 2011-2014 decreased significantly**, with the securing of the CSTEP award the amount stabilized to approximately \$2,500/student/year (Fig. 2). During these two years, the main source of stipend funds has come from our HSI-STEM grant, which ends on Sept. 30, 2016. We have reapplied to this program, though the future of the application is uncertain.

The Eight and Ninth Annual John Jay College PRISM Undergraduate Research Symposium were held on April 29, 2015 and May 4, 2016 as part of the annual college-wide Celebrating Student Research & Creativity week. The 2016 PRISM Symposium was attended by over 250 students, faculty, and administrators (a record number). The 2015 Symposium featured talks from John Jay alumni **Daniel Cocris, DMD** and our 2015 Outstanding Undergraduate Researcher, **Yessenia Lopez** (from S. Cheng's lab). Over 40 students presented their research in poster presentations. **Derek Sokolowski** was the recipient of PRISM's Outstanding Poster Award (he also won the College-wide poster competition for Research Week). The 2016 Symposium featured an invited talk from a former John Jay College forensic science undergraduate student, **Dr. Anastasiya Yermakova**, who earned her PhD in immunology at University of Albany in 2013. **David Rodriguez** (from A. Domashevskiy's lab) gave an oral presentation as winner of the annual prize for Outstanding Undergraduate Researcher. Fifty-five PRISM students presented posters at the event, where senior Forensic Science student, **Jiwon Seo** (from S. Cheng's lab), won our Outstanding Poster Presentation Award, while **Ronald Rodriguez** (from J. Rauceo's lab) was the runner-up for this award.

## 2014-16 Outreach to Community College Partners from the CJA

Outreach to our partner community colleges continued this year with a focused effort to engage forensics majors in the CUNY Justice Academy (CJA) in activities that would introduce them to John Jay and to our PRISM students. Our outreach included Science for Forensics majors from Kingsborough Community College (KCC), Bronx Community College (BCC), Borough of Manhattan Community College (BMCC), Queensborough Community College (QCC), and Hostos Community College.

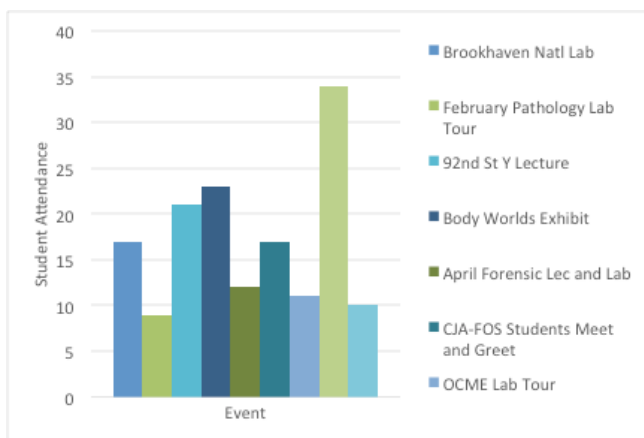


Figure 3 Summary of student attendance at PRISM-sponsored enrichment events (outside events in dark blue, lab tours in light blue)

Outreach activities included an outing to the Brookhaven National Laboratories, a 92<sup>nd</sup> Street Y Lecture about the process of science, the Body Worlds Exhibit, a tour of the Office of Chief Medical Examiner (OCME), a visit to the American Museum of Natural History (AMNH) (Fig. 3). Additionally, community college students were invited to visit John Jay for a special panel of OCME

scientists from different departments that talked about different career options within the OCME. We were also joined by CJA students at our annual PRISM Symposium. In the fall of 2015 Dr. Raquel Castellanos was hired as Outreach Coordinator to replace Ms. Fran Jimenez. The new Outreach Coordinator visited QCC, BMCC, BCC and Hostos Community Colleges to introduce herself to the forensics faculty liaisons as well as directors of dual degree programs. In addition, PRISM Coordinators helped organize an information session about the CJA-FOS program at QCC, where a presentation overview of how the transition process works, how they can get involved with PRISM while at their CC and coursework necessary before transferring to John Jay. As in the past, PRISM mentors visited QCC to guest lecture; the fall semester lecturer was Dr. Marta Concheiro-Guisan and the spring semester lecturer was Dr. Elise Champeil.

This year we introduced a new activity to which we invited all current CJA-FOS students that have transitioned to John Jay. This community building activity

provided an opportunity for CJA students, who share similar experiences, to come together and discuss with the PRISM coordinators and with their peers what the transition process was like. CJA-FOS students were also able to present suggestions that could alleviate issues they face when moving from a 2-year to a 4-year college. PRISM plans to continue this “meet and greet” opportunity every semester to accommodate CJA-FOS students transferring in both the fall and spring semesters.

PRISM also hosts events specifically designed for CJA students close to the point of transition to assure they articulate to John Jay and to foster their interest in undergraduate research once they do transfer.

The first of these was a seminar, intended as a basic introduction to forensic science for underclassmen. This year’s seminar took place over three days in August. A combination of 15 CJA students and John Jay freshmen participated, learning about each of the three forensic science tracks offered at John Jay as part of the major. This annual seminar was very well received and allowed students to become excited about their chosen academic path.

The second targeted activity was our lab shadowing initiative. Twice during the year, John Jay freshmen and CJA students were invited to buddy up with a current PRISM student to spend a block of time observing and when possible, participating in, their research lab activities. Now in its fourth year, we are starting to see that participation in this activity often leads to future participation in PRISM research. We hope to continue the trend of increased CJA partner student participation.

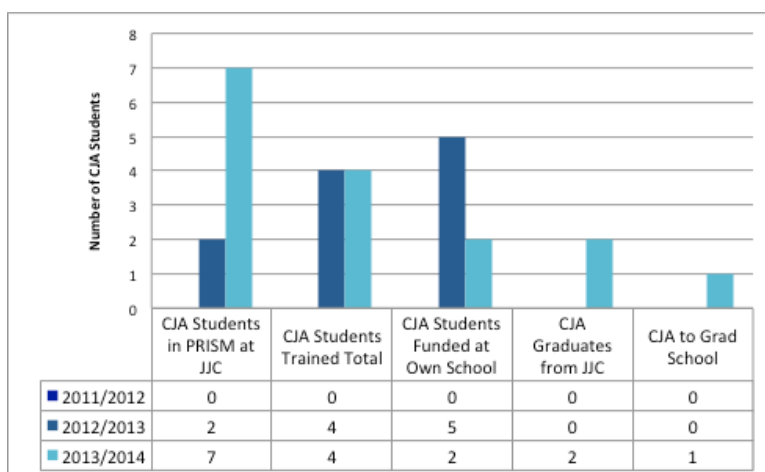


Figure 4 CJA PRISM participation and graduation outcomes. As a result of outreach efforts, students transitioning from partner community colleges are now more likely to participate in undergraduate research opportunities.

In addition to the outreach activities described above, efforts continued to actively engage CJA forensics students in opportunities relating directly to undergraduate research. Students from QCC and BMCC were invited at the beginning of each semester to apply for

research stipends allocated by PRISM, to facilitate research work to be completed at their own schools. These schools have on-campus research labs (BCC and Hostos do not have the needed facilities to do on-campus research). One student from QCC and one student from BMCC were funded for their research. In the coming years, we would like to see more CJA students involved in research before their transition, but access to labs and mentors continues to be a challenge.

PRISM made great progress recruiting and involving CJA students in undergraduate research upon their transition to John Jay (Fig. 4). Several of the students funded for PRISM research at John Jay were previously part of the CUNY Justice Academy as partner forensics majors. Additionally, seven CJA students participated in the Research Training Workshops in anticipation of starting research at John Jay. PRISM proudly graduated four **CJA-recruited students in June of 2016**: Jiwon Seo, Kathleen Lopez, Natalia Fernandez and Fidelis Tan. Jiwon Seo is now enrolled in a PhD program in Biomedical Sciences at Brown University and Fidelis Tan is enrolled at the Hunter College, Advanced Certificate Medical Technology Program.

### PRISM Junior Scholars

PRISM Junior Scholars Program provides academic advisement and support to undergraduates part of the science majors at John Jay who are not part of URP. Over fifty students obtained tutoring (through the MSRC) and attended workshops on study habits, application to summer programs, and other topics. Students received an average of 14 hours/student of tutoring throughout the year, and received >\$55,000 in stipends.

### Graduate and Professional School Enrollment

As noted in Fig. 6, about one third of students graduating from the Program are admitted to graduate or professional programs in STEM disciplines within 2-3 years of obtaining their John Jay degrees. Although research programs at other institutions claim larger percentages of students/alumni enrolled in graduate STEM programs, those programs generally limit admission only to students interested in pursuing Ph.D's or MD/Ph.D.'s, **which we do not**. We remain committed to providing research opportunities to talented students, **regardless of their professional aspirations**.



At this point, we have identified **68 PRISM graduates** who are in or have completed graduate or professional programs. Several remain in active contact with our program and have welcomed contact from our current PRISM students. Contributing to the positive outcomes of the program, **21 PRISM**

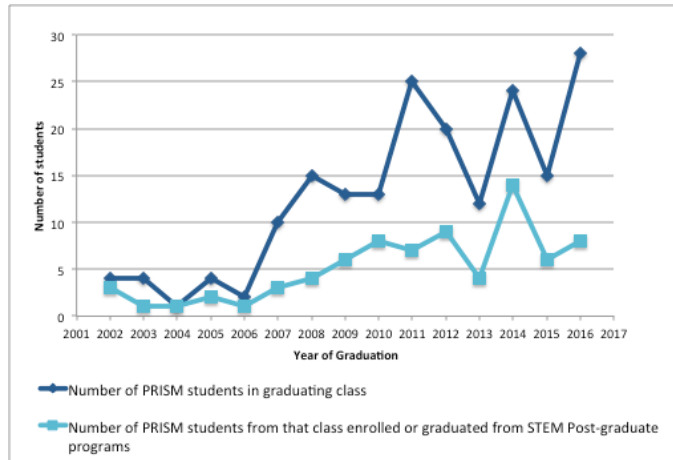


Figure 5 Participation in PRISM and students enrolling in post-graduate STEM, health, and science-education programs

**graduates** started graduate or medical programs in the fall of 2016 (See Appendix, Table 1)

and our students have received acceptances to 13 summer research programs outside John Jay in the summers of 2015 and 2016 (see Appendix, Table 2).

## Continuing Efforts

We continued many of the activities that have made PRISM a successful research experience for undergraduates. These efforts include:

1. The Undergraduate Research Chronicle – the sixth and seventh editions of this publication included short biographies and research abstracts from our students and faculty.
2. GRE Preparation Course – a comprehensive prep course was offered over the summer to about ten students.
3. Monthly Newsletters and other communications – To keep our students informed, these e-newsletters contain dates to know, special events announcements, and short stories about our students' accomplishments.
4. PRISM Monthly Meetings – In these mandatory meetings students get the chance to hear about opportunities for research outside the College, talks by invited scientists and/or PRISM students/alumni, and we get to catch up with our students over lunch or dinner.
5. Program Self-Assessment – significant effort is put in by our staff and our Assessment Specialists to obtain relevant data and metrics from our students and faculty members to improve the Program.
6. PRISM Research Training Workshops – these events, aimed at recruiting John Jay students into the program, continue to be an effective way to



ensure more junior students are aware of the opportunities PRISM provides.

7. Outreach Efforts – as described above, these events attract CJA students to continue their degrees at the College and provide them opportunities to be involved early on at PRISM and the College.

## Near- and Long-Term Goals

As our 10<sup>th</sup> Anniversary approaches, we hope to maintain and expand the support we provide to our students, faculty, and the College at large. We believe that PRISM's success is due to the three core principles under which we operate:

1. Supplying undergraduate research experiences to our students will provide them with, in addition to opportunities for technical and intellectual growth, strong and nurturing mentor-mentee relationships that will positively impact their professional as well as their personal lives.
2. Providing support for our faculty mentors is essential to creating a strong community of academic researchers, which will expand the opportunities available to our students.
3. Developing a "PRISM identity" in our undergraduate researchers will help them develop a strong sense of community within themselves, which will enhance their experience at John Jay by providing them with tools to help each other succeed.

Over the next two years we will maintain the presence and exposure of the program both internally and externally, while continuing our efforts to further establish and maintain contact with PRISM alumni and report on their achievements to current PRISM students. At the same time we will begin new initiatives aimed at strengthening the program by focusing on our three core principles. These new initiatives include:

1. Help our students develop the professional skills needed to transition to and effectively navigate their professional careers.
2. Engage with other Academic Success Programs at the College to leverage their services with our expertise in STEM education to improve our students' preparedness.

3. Further develop the PRISM “brand” to increase both the presence of the Program at John Jay, as well as to create a “PRISM identity” among our students as scientists and scholars.
4. Increase the visibility of John Jay’s students and Science Programs nationally and among the top STEM graduate programs, by showcasing the diverse STEM research being performed by our faculty and undergraduate researchers at national undergraduate research conferences.
5. Increase support to our faculty, both financially as well as in their development as mentors.
6. Provide opportunities to our faculty to collaborate and engage in interdisciplinary research avenues.
7. Increase the participation of Computer Information Systems majors in PRISM.
8. Increase the number of first-year John Jay and CJA students that engage in enrichment activities that promote research and PRISM, such as lab tours, shadowing, lectures, workshops, and field trips.

## Appendix

**Table 1** PRISM students and alumni matriculated into professional STEM programs in 2014-16

Year of Graduation	Name	Matriculated to	Year of Matriculation	Mentor
2016	Brooke Nielsen	John Jay College of Criminal Justice, M.S. Forensic Science Program	Fall 2016	E. Champeil
2016	Desiree Williams	University of California at Riverside, Ph.D. Program in Cell, Molecular and Developmental Biology	Fall 2016	R. Li
2016	Fidelis Tan	Hunter College, Advanced Certificate Medical Technology Program	Fall 2016	Y. He
2016	Jiwon Seo	Brown University, Ph.D. Program in Molecular Biology	Fall 2016	S. Cheng
2016	Kelsha Sanchez	NYC Teaching Fellows	Fall 2016	R. Li
2016	Porfirio Fernandez	New York University, Ph.D. Program in Biology	Fall 2016	J. Rauceo
2016	Ronald Rodriguez	University of Pennsylvania, Post-Baccalaureate Research Education Program	Fall 2016	J. Rauceo
2016	Shanelle Shillingford	Yale University, Ph.D. Program in Chemistry	Fall 2016	G. Proni
2016	Shantoi Shaw	NYC Teaching Fellows	Fall 2016	H. Maras/A. Ahmad
2015	Karen Conrad	Hunter College, MA Program in Biology	Fall 2016	J. Rauceo
2015	Derek Sokolowski	Hunter College, MA Program in Biology	Fall 2016	N. Lents
2015	Samuel Reinfeld	New York College of Osteopathic Medicine, DO Program in Medicine	Fall 2015	A. Domashevskiy
2015	Shawn Williams	Brown University, Ph.D. Program in Molecular Biology	Fall 2015	A. Domashevskiy
2015	Yessenia Lopez	Albert Einstein College of Medicine, Post-Baccalaureate Research Education Program	Fall 2015	S. Cheng
2015	James Parziale	Ph.D. Program at Weill Cornell Graduate School of Medical Sciences	Fall 2016	N. Lents

2015	Tanya Napolitano	Ph.D. Program in Biochemistry at City University of New York-Graduate Center	Fall 2016	N. Petraco/G. Proni
2014	Kitty Law	Pennsylvania State University, MS program in Forensic Science	Fall 2016	P. Diaczuk
2014	Baibhav Rawal	University of South California, Ph.D. Program in Chemistry	Fall 2015	E. Korobkova
2014	Bik Tsu Huang	M.S. Program in Biomedical Sciences at Icahn School of Medicine at Mount Sinai	Fall 2016	E. Champeil
2014	Christine Ta	M.Sc. Program in Bioarchaeological and Forensic Anthropology Studies at University College London	Fall 2016	S. Cheng
2013	Anna Stoll	Ph.D. Program in Molecular Biology at Michigan State University	Fall 2016	S. Cheng

**Table 2** PRISM students and alumni attending summer research programs outside John Jay in 2014-16

Summer attended	Name	Program	Mentor
2016	Donovan Trinidad	Leadership Alliance/Summer Undergraduate Internship Program (SUIP) at University of Pennsylvania	N. Lents
2016	Erica Klafehn	Human Osteology Bootcamp in Pernosano, Italy	A. Corthals
2016	Lisset Duran	Leadership Alliance Summer Research-Early Identification Program at Brown University	L. Delgado-Cruzata
2016	Michael Muyalde	The Northeast Regional Alliance (NERA) MedPrep Program at Columbia University	L. Delgado-Cruzata
2016	O'Jay Stewart	The Northeast Regional Alliance (NERA) MedPrep Program at Columbia University	A. Domashevskiy
2016	Ronal Peralta	Summer Research Experience for Undergraduates (REU) in Microbiology at University of Iowa Carver College of Medicine	A. Carpi
2016	Veena Mehta	Rural Agency for Social and Technological Advancement, Kerala, India	J. Rosati
2015	Lisset Duran	Summer Research Program, The National Institute of Medicinal & Aromatic Plants, Morocco	L. Delgado-Cruzata
2015	Porfirio Fernandez	Leadership Alliance/Howard Hughes Medical Institute Summer Undergraduate Research Program, University of Miami	J. Rauceo

2015	Daysi Proano	Undergraduate Summer Research In Molecular Biophysics, Princeton University	P. Svoronos (QCC)
2015	Jiwon Seo	Leadership Alliance/Summer Research Opportunities at Harvard Program, Harvard University	S. Cheng
2015	Shanelle Shillingford	Summer Undergraduate Research Fellows Program, the Scripps Research Institute (California Campus)	G. Proni
2015	Desiree Williams	CUNY Summer Undergraduate Research Program	R. Li

**Table 3** PRISM Funded Undergraduate Researchers, 2014-16

Last Name	First Name	Mentor(s)	# of terms funded	Status	CJA Researcher/ Comment
Aguilar	William	Champeil	4	Currently Enrolled	
Aitbakieva	Valentina	Domashevskiy	9	Graduated Spring 2016	
Bell	Brianna	Champeil	3	Graduated Spring 2016	
Blandino	Vincent	Conchiero-Guisan	2	Currently Enrolled	
Bliese	Alorah	Delgado-Cruzata	1	Currently Enrolled	
* Brathwaite	Nyeisha	Zhang	5	Graduated Spring 2016	At BMCC & at John Jay
Brown	Ashley	Kubic	5	Graduated Spring 2016	
Castilla	Carlos	Khan	2	Graduated Spring 2015	
Chiu	Melinda	Proni	4	Graduated Spring 2015	
Cofane	Marissa	Diaczuk	2	Currently Enrolled	
Conrad	Karen	Rauceo	3	Graduated Spring 2015	
Cush	Dee-Anne	Corthals	1	Currently Enrolled	
Day	Jeanine	Diaczuk	4	Currently Enrolled	
De los Santos	Sabrina	Domashevskiy	5	Graduated Spring 2016	

DePrimo	Victoria	Corthals	1	Currently Enrolled	
Duffy	Laura	Corthals	2	Graduated Spring 2015	
Duran	Lisset	Delgado-Cruzata	3	Currently Enrolled	Unfunded (LSAMP)
Edwards-Murdock	Laurie-Ann	Diaczuk	2	Graduated Spring 2016	
Farmer	Margaret	Corthals	1	Currently Enrolled	
* Faure-Betancourt	Maria Alejandra	Li	1	Currently Enrolled	At BMCC & at John Jay
* Fernandez	Natalia	Proni	4	Graduated Spring 2016	At BMCC & at John Jay
Fernandez	Porfirio	Rauceo	4	Graduated Spring 2016	
Fontanes	Erica	Proni	3	Currently Enrolled	
* Forbes	Akiema	Champeil	2	Currently Enrolled	At John Jay
Fragale	Joseph	Rosati	1	Currently Enrolled	
Guo	Josephine	Carpi	2	Currently Enrolled	
Guzman	Stephania	Lents	5	Graduated Spring 2015	
Hargett	Imani	Delgado-Cruzata	5	Graduated Spring 2016	
Jaquez	Enil	Proni	1	Currently Enrolled	
Jean	Sophia	Li/Rosati	4	Graduated Spring 2016	
Kakhovich	Julia	Lents	2	Currently Enrolled	
Khan	Zenab	Lents	6	Currently Enrolled	
Khusial	Richard	Carpi	7	Graduated Spring 2015	
Kinahan	Cristina	Proni	6	Graduated Spring 2015	
Klafhen	Erica	Corthals	3	Graduated Spring 2016	Co-Funded/McNair
Lerer	Anna	Lents	6	Graduated Spring 2015	

Lopez	Yessenia	Cheng	5	Graduated Spring 2015	
* Lopez	Kathleen	He	7	Graduated Spring 2016	At John Jay
Mahon	Glen	Diaczuk	5	Currently Enrolled	
McLean	Robert	Zhang/ Petraco	3	Graduated Spring 2016	
McNamara	Colleen	He	5	Currently Enrolled	
Mehta	Veena	Rosati	2	Currently Enrolled	
Mei	Victoria	He	4	Graduated Spring 2016	
* Mendoza	Ana	Carpi	1	Currently Enrolled	At John Jay
Menier	Herold	Diaczuk	7	Graduated Spring 2015	
Mercado	Annabell	Delgado- Cruzata	3	Graduated Spring 2016	
Montes	Jazlene	Cheng	8	Currently Enrolled	
* Morales	Elmer	Conchiero- Guisan	3	Currently Enrolled	At John Jay
Muyalde	Michael	Delgado- Cruzata	3	Currently Enrolled	
Napolitano	Tanya	Proni/ Petraco	8	Graduated Spring 2015	
Nielsen	Brooke	Champeil	3	Graduated Spring 2016	
Oh	Jae Hyuk	Johnson	3	Graduated Spring 2016	
Peralta	Ronal	Carpi	4	Currently Enrolled	
Phoenix	Tonya	Zhang	6	Graduated Spring 2016	
Pierre	Dara	Champeil	1	Graduated Spring 2015	
* Proano	Daysi	Svoronos	2	Currently Enrolled	At QCC
Reinfeld	Samuel	Domashevskiy	4	Graduated Spring 2015	
Rodriguez	David	Domashevskiy	7	Graduated Spring 2016	



Rodriguez	Ronald	Rauceo	4	Graduated Spring 2016	
Rodriguez	Christopher	Roberts	3	Graduated Spring 2016	
* Romero	Ruth	Roberts	2	Currently Enrolled	At John Jay
Rouse	Danielle	Carpi	6	Graduated Spring 2016	
* Sanchez	Stephanie	Cheng	1	Currently Enrolled	At John Jay
Sanchez	Kelsha	Li	3	Graduated Spring 2016	
* Seo	Jiwon	Cheng	7	Graduated Spring 2016	At John Jay
Shaw	Shantoi	Ahmad/Maras	3	Graduated Spring 2016	
Shillingford	Shanelle	Proni	4	Graduated Spring 2016	
Sokolowski	Derek	Lents	5	Graduated Spring 2015	
Stewart	O'Jay	Domashevskiy	4	Currently Enrolled	
* Tan	Fidelis	He	6	Graduated Spring 2016	At John Jay
Tan	Joanne	Zhang	5	Graduated Spring 2016	
Texeira	Carlos	Carpi	4	Graduated Spring 2015	
Trinidad	Donovan	Lents	3	Currently Enrolled	
Uzagir	Khamattie	Champeil	3	Currently Enrolled	
Vanderburgh	Joseph	Diaczuk	3	Currently Enrolled	
Williams	Shawn	Domashevskiy	5	Graduated Spring 2015	
Williams	Desiree	Li	4	Graduated Spring 2016	
Wong	Tiffany	He	4	Graduated Spring 2016	Co-Funded/McNair
Wu	Michael	Lents	4	Graduated Spring 2016	
* Yakovishina	Veronika	Cheng	4	Currently Enrolled	At QCC & at John Jay
Yarde	Shari	Carpi	6	Graduated Spring 2015	

Zacarias	Owen	Champeil	1	Currently Enrolled	
* Zhang	Yuanzhuo	Zhang	5	Currently Enrolled	At KCC & at John Jay

\* Denotes a student part of the CUNY Justice Academy

**Table 4** Students Participating in PRISM Research Training Workshops

January 2015			August 2015		
Last Name	First Name	Mentor	Last Name	First Name	Mentor
Aguiar	William	Champeil	Blandino	Vincent	Concheiro -Guisan
Bell	Brianna	Champeil	Buvasheva	Bella	Li
Day	Jeanine	Diaczuk	Cofane	Marissa	Diaczuk
Duffy	Laura	Corthals	DePrimo	Victoria	
* Eusebio	Gerallynn		Fontanes	Erica	Proni
Hargett	Imani	Delgado-Cruzata	* Garzon Maldonado	Fernando	
Khan	Zenab	Lents	Guo	Josephine	Carpi
Mayakaduwa	Nithusha		Marino	Stephanie	
* Morales	Elmer	Concheiro-Guisan	* Mendoza	Ana	Carpi
Nielsen	Brooke	Champeil	Mercado	Annabell	Delgado-Cruzata
Peralta	Ronal	Carpi	Muyalde	Michael	Delgado-Cruzata
Tan	Jia Wen	Zhang	Rodriguez	Chris	Roberts
Trinidad	Donovan	Lents	Stewart	O'Jay	Domashevskiy
Uzagir	Khamattie	Champeil	Vandenburgh	Joseph	Diaczuk
Wu	Michael	Lents			

January 2016			August 2016		
Last Name	First Name	Mentor	Last Name	First Name	Mentor
Zacarias	Owen	Champeil	Urbano Molina	Kevin	Carpi
Cush	Dee-Anne	Corthals	Covas	Jessica	
Bliese	Alorah	Delgado-Cruzata	Cadet	Junior	Proni
Jaquez	Enil	Proni	Celojevic	Stefan	
Perez	Jazmin		Chu	Hannah	
Kakhovich	Julia	Lents	DeJesus	Alexa	
Browne	Tebah	Prinz	Fragale	Joseph	Rosati

Samuels	Kelley		Kosakowski	April	Carpi
Farmer	Margaret	Corthals	Paucar	Yoselin	
* Faure-Betancourt	Maria-Alejandra	Li	* Frederick	Bonnie-Marie	
Maynard	Darrien	Carpi	* Lee	Abigail	

\* Denotes a student part of the CUNY Justice Academy

## Awards and Honors

- Porfirio Fernandez, Yessenia Lopez, and Jiwon Seo received Travel Awards to the 2014 Annual Biomedical Research Conference for Minority Students (ABRCMS).
- David Rodriguez, Imani Hargett, Erica Klafehn Sabrina De Los Santos, Yuanzhuo Zhang, Ronal Peralta, Daysi Proano, Ronald Rodriguez, and William Aguilar received Travel Awards to the 2015 Annual Biomedical Research Conference for Minority Students (ABRCMS).
- Ronald Rodriguez and William Aguilar received Oral Presentation Awards at the 2015 Annual Biomedical Research Conference for Minority Students (ABRCMS), while Jiwon Seo received a Poster Presentation Award.
- William Aguilar was the recipient of a partial J. Edgar Hoover Scholarship (\$1000) in the fall of 2015, while Shanelle Shillingford received an Upper Division Scholarship from John Jay College.
- Tiffany Wong and Danielle Rouse received a John Jay Student Travel Award to attend scientific conferences (Pittcon and SoT, respectively).
- Jae H. Oh was the recipient of a Frank Hana Scholarship in the spring of 2016.
- Erica Klafehn was the recipient of John Jay's Peer Ambassador Leadership Program Peer Choice Award.
- Donovan Trinidad received an ASM Student Travel Award to present a poster in the 2016 ASM Microbe Conference.
- Shanelle Shillingford received a Distinguished Chemistry Fellowship from Yale, where she will begin graduate studies in the fall of 2016.

## Publications

### 2013-2014

1. Carpi, A., Fostier, A.H., Santos, J.C., Gittings, M., & Orta\*, O.R. (2014) Mercury emissions from soil following the loss of forest cover in the United States and Brazil. *Atmospheric Environment*, 96, 423-429.
2. Cheng, S.Y., Oh, S., Velasco, M., Ta\*, C., Montalvo, J., & Calderone\*, A. (2014). RTP801 regulates maneb- and mancozeb-induced cytotoxicity via NF-kappa  $\beta$ . *J Biochem Mol Toxicology* (28) 302-311.
3. Cross\*, S.N., Quinteros\*, E., & Roberts, M. (2015). Surface modification for the collection and identification of fingerprints and colorimetric detection of urea nitrate. *Journal of Forensic Sciences*, 60(1), 193-196.
4. Li, R., Gaud, M., & Nair\*, S. An enzymatic method to process decomposed non-human bone for forensic DNA analysis. *J Forensic Res*, 5.220 (2014): 2.
5. Marotta, D.H., Nantel, A., Sukala\*, L., Teubl\*, J.R., & Rauceo, J.M. (2013). Genome-wide transcriptional profiling and enrichment mapping reveal divergent and conserved roles of Sko1 in the *Candida albicans* osmotic stress response. *Genomics*, 102(4), 363-371.
6. Ouedraogo, Y.P., Huang, L., Torrente, M.P., Proni, G., Chadwick\*, E., Wehmschulte, R.J., & Nesnas, N. (2013). A Direct Stereoselective Preparation of a Fish Pheromone and Application of the Zinc Porphyrin Tweezer Chiroptical Protocol in Its Stereochemical Assignment. *Chirality*, 25(9), 575-581.
7. Piszczatowski\*, R.T., Rafferty, B.J., Rozado\*, A., Tobak\*, S., & Lents, N.H. (2014). The glyceraldehyde 3-phosphate dehydrogenase gene (GAPDH) is regulated by myeloid zinc finger 1 (MZF-1) and is induced by calcitriol. *Biochemical and Biophysical Research Communications*, 451(1), 137-141.
8. Williams\*, C., Lin\*, Y., Maynard, A., & Cheng, S.Y. (2013). Involvement of NF Kappa  $\beta$  in potetiated effect of Mn-containing dithiocarbamates on MPP+ induced cell death. *Cellular and Molecular Neurobiology* (33) 815-823.

### 2014-2015

1. Aitbakieva\*, V. & Domashevskiy, A. (2015) Characterization of pokeweed antiviral protein (PAP) isoforms and comparison of their enzymatic activities toward the tobacco etch virus RNA. *The FASEB Journal* 29.1 Supplement, LB160.

2. Baranova, A., Huang\*, B. T., Kocak, A., & Champeil, E. Quantitation of amoxicillin in urine by nuclear magnetic resonance. Application to five cases. *Journal of Clinical and Analytical Medicine*; 7(1), 65-9.
3. Champeil, E., Cheng, S. Y., Huang\*, B. T., & Seo\*, J. (2015). The role of p21 in the toxicity of mitomycin C and decarbamoylmitomycin C. *Cancer Research*, 75 (15 Supplement), 2453-2453.
4. Piszczatowski\*, R. T., Rafferty, B. J., Rozado\*, A., Parziale\*, J. V., & Lents, N. H. (2015). Myeloid zinc finger 1 (MZF 1) regulates expression of the *CCN2/CTGF* and *CCN3/NOV* genes in the hematopoietic compartment. *Journal of Cellular Physiology*, 230(11), 2634-2639
5. Liu, E., Zhang\*, Y. Z., Li, L., Yang, C., Fetting, J. C., & Zhang, G. (2015). New copper (II) species from the copper/2, 2'-bipyridine and copper/4-dimethylaminopyridine catalyzed aerobic alcohol oxidations. *Polyhedron*, 99, 223-229.
6. Liu, E., Zhang\*, Y. Z., Tan\*, J., Yang, C., Li, L., Golen, J. A., ... & Zhang, G. (2015). Zn (II) and Co (III) metallosupramolecular assemblies derived from a rigid bis-Schiff base ligand. *Polyhedron*, 102, 41-47.
7. Piszczatowski\*, R. T., Rafferty, B. J., Rozado\*, A., Tobak\*, S., & Lents, N. H. (2014). The glyceraldehyde 3-phosphate dehydrogenase gene (*GAPDH*) is regulated by myeloid zinc finger 1 (MZF-1) and is induced by calcitriol. *Biochemical and Biophysical Research Communications*, 451(1), 137-141.
8. Rodriguez\*, D. & Domashevskiy, A. (2015) Synthesis of fluorescently-labeled tobacco etch virus (TEV) RNA and its interactions with pokeweed antiviral protein (PAP). *The FASEB Journal 29.1 Supplement*, LB222.
9. Rozado\*, A., Piszczatowski\*, R., Rafferty, B., & Lents, N. (2014). Regulation of *CCN2* and *CCN3* in bone marrow through myeloid zinc finger-1 and its medical implication in hematopoiesis (1005.4). *The FASEB Journal*, 28 (1 Supplement), 1005-4.
10. Yin, Z., Zhang, G., Phoenix\*, T., Zheng, S., & Fetting, J. C. (2015). Assembling mono-, di- and tri-nuclear coordination complexes with a ditopic analogue of 2, 2': 6', 2''-terpyridine: syntheses, structures and catalytic studies. *RSC Advances*, 5(45), 36156-36166.
11. Zhang, G., Jia, Y. X., Chen, W., Lo, W. F., Brathwaite\*, N., Golen, J. A., & Rheingold, A. L. (2015). Diverse zinc (II) coordination assemblies built on divergent 4, 2': 6', 4''-terpyridine derivatives: syntheses, structures and catalytic properties. *RSC Advances*, 5(21), 15870-15879.
12. Zhang, G., Tan\*, J., Zhang\*, Y. Z., Ta\*, C., Sanchez\*, S., Cheng, S. Y., ... & Rheingold, A. L. (2015). Syntheses, structures and cytotoxicity of cobalt (II)

complexes with 4'-chloro-2, 2': 6', 2''-terpyridine. *Inorganica Chimica Acta*, 435, 147-152.

13. Zhang, G., Zhang\*, Y. Z., Lo, W. F., Jiang, J., Golen, J. A., & Rheingold, A. L. (2015). Diverse copper (II) complexes with simple nitrogen ligands: Structural characterization and applications in aerobic alcohol oxidations in water. *Polyhedron*, 103, 227-234.

\*Denotes a PRISM student or alumnus.

## Conference Presentations and Abstracts

### 2014 Annual Biomedical Research Conference for Minority Students (ABRCMS), San Antonio, TX

1. Fernandez\*, P., Rauceo, J. "The Yeast Chaperone Sse1 Plays a Novel Role in Processing Cell Wall Amyloid-Forming Adhesins," Annual Biomedical Research Conference for Minority Students (ABRCMS), San Antonio, TX; November 12-15, 2014.
2. Guzman\*, S., and Lents N.H. "Analysis of the Human Microbiome on Living and Decomposing Bodies," Annual Biomedical Research Conference for Minority Students (ABRCMS), San Antonio, TX; November 12-15, 2014.
3. Khusial\*, R., Carpi, A. The Role of Temperature and UV Light in the Reduction of Mercury (II) Chloride to Elemental Mercury," Annual Biomedical Research Conference for Minority Students (ABRCMS), San Antonio, TX; November 12-15, 2014.
4. Kinahan\*, C., Proni, G., Tami, K., Petrovic, A. G., Ben-Shabat, S. "Chiroptical characterization and biological evaluation of selected organophosphates," Annual Biomedical Research Conference for Minority Students (ABRCMS), San Antonio, TX, November 12-15, 2014.
5. Lopez\*, Y., Cheng, S. "Manganese-Containing Dithiocarbamate Pesticides Increase  $\beta$ -amyloid Precursor Protein and  $\beta$ -amyloid Peptide Expression in PC-12 Cells," Annual Biomedical Research Conference for Minority Students (ABRCMS), San Antonio, TX; November 12-15, 2014.
6. Montes\*, J., Cheng, S. "Effect of Manganese-Containing Dithiocarbamates on Double-Stranded RNA Dependent Protein Kinase (PKR) Signaling Pathway," Annual Biomedical Research Conference for Minority Students (ABRCMS), San Antonio, TX; November 12-15, 2014.
7. Romero\*, R., Roberts, M. "Surface Modification for the Detection of Illicit Biomarkers in Fingerprint Sweat," Annual Biomedical Research

- Conference for Minority Students (ABRCMS), San Antonio, TX; November 12-15, 2014.
8. Seo\*, J., Cheng, S. "Mitomycin C and 10-Decarbamoyl Mitomycin A Activity Study on p53 Wild-type and Deficient Cancer Cells using Flow Cytometry," Annual Biomedical Research Conference for Minority Students (ABRCMS), San Antonio, TX; November 12-15, 2014.
  9. Sokolowski\*, D. and Lents N.H. "DNA-Based Forensic Analysis of Plant Phylogeny Identification using Chloroplast DNA," Annual Biomedical Research Conference for Minority Students (ABRCMS), San Antonio, TX, November 12-15, 2014.
  10. Texeira\*, C., Carpi, A. "Using Bird Feathers as Bio-monitors of Mercury in the Environment," Annual Biomedical Research Conference for Minority Students (ABRCMS), San Antonio, TX; November 12-15, 2014.
  11. Williams\*, S., Domashevskiy, A. "Pokeweed Antiviral Protein Binds to Structures Present in the 3' Untranslated Regions of Viral mRNA," Annual Biomedical Research Conference for Minority Students (ABRCMS), San Antonio, TX; November 12-15, 2014.
  12. Yarde\*, S., Carpi, A. "The Role of Water and pH in the Reduction of Mercury (II) Chloride to Elemental Mercury," Annual Biomedical Research Conference for Minority Students (ABRCMS), San Antonio, TX; November 12-15, 2014.

\*Denotes a PRISM student or alumnus.

## 2015 Society of Toxicology Annual Conference, San Diego, California

1. Lerer\*, A., Fonarova T., and Lents N.H., "Zinc Reduces the Detection of THC by ELISA Urine Testing, While Copper May Cause a False-Positive Result," 54th Society of Toxicology Annual Conference, San Diego, CA; March 22-26, 2015.
2. Lopez\*, Y., Montes\*, J., Cheng, S.Y., "Manganese-containing dithiocarbamates increase the expression of amyloid precursor protein and the level of phosphorylated PKR," 54th Society of Toxicology Annual Conference, San Diego, CA; March 22-26, 2015.
3. Seo\*, J., Ta\*, C., Cheng, S.Y., "Mancozeb induced cell cycle arrest and senescence via RTP801," 54th Society of Toxicology Annual Conference, San Diego, CA; March 22-26, 2015.



## 2015 Experimental Biology, Boston, Massachusetts

1. Aitbakieva\*, V.R. and Domashevskiy, A.V. "Isolation, Purification and Characterization of Pokeweed Antiviral Protein (PAP) Isoforms, and Comparison of Their Enzymatic Activities Towards the Tobacco Etch Virus RNA," Experimental Biology 2015: American Society of Biochemistry and Molecular Biology, Boston, MA; March 27-April 1, 2015.
2. Rodriguez\*, D.J. and Domashevskiy, A.V. "Synthesis of Fluorescently-Labeled Tobacco Etch Virus (TEV) RNA and Its Interactions with Pokeweed Antiviral Protein (PAP)," Experimental Biology 2015: American Society of Biochemistry and Molecular Biology, Boston, MA; March 27-April 1, 2015.

\* Denotes a PRISM student or alumnus.

## 2015 Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA

1. Aguilar\*, W., Champeil, E. "Correlation of Mc and Dmc-Adducts Structures with the Role of P21 in the Toxicity of the  $\alpha$ -icl and  $\beta$ -ic," Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA; November 11-14, 2015.
2. De Los Santos\*, S., Domashevskiy, A. "Analysis of the Effects of Turnip Mosaic Virus Protein-Linked Genome on Ricin a Chain Depurination of Eukaryotic Ribosomal RNA," Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA; November 11-14, 2015.
3. Duran\*, L., Delgado-Cruzata, L. "Studying the Loss of DNA Methyltransferase DNMT1 in BRCA1 Expression in Breast Cancer," Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA; November 11-14, 2015.
4. Fernandez\*, P., Chen, P., Han, C., Sagen, J. "Behavior Expression Profile of alpha-Conotoxin Pel A in Chronic Constriction Injury Model in Rats" Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA; November 11-14, 2015.
5. Hargett\*, I., Delgado-Cruzata, L. "Understanding the Role of TET Proteins in 5-Hydroxymethylation in Hepatocellular Carcinoma," Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA; November 11-14, 2015.
6. Klafehn\*, E., Corthals, A. "2D to 3D Rending of Bones Samples from *Sus scrofa*," Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA; November 11-14, 2015.

7. Peralta\*, R., Carpi, A. "Using Moss as a Biomonitor to Detect Atmospheric Sources of Mercury," Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA; November 11-14, 2015.
8. Proano\*, R., O'Dricoll, E., Fietze, K., Boulanger, L. "Characterizing MHCI cytoplasmic domain phosphorylation *in vitro* and its role in binding interactions," Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA; November 11-14, 2015.
9. Rodriguez\*, D., Domashevskiy, A. "Synthesis of Fluorescently-Labeled Tobacco Etch Virus (TEV) RNA and its Interactions with Pokeweed Antiviral Protein (PAP)," Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA; November 11-14, 2015.
10. Rodriguez\*, R., Salcedo\*, E., Rauceo, J. "Localization Analysis of a Major Osmotic Stress Response Gene in the Fungus *Candida albicans*," Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA; November 11-14, 2015.
11. Rouse\*, D., Carpi, A. "The Reduction Mechanism of Mercuric Oxide in the Environment," Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA; November 11-14, 2015.
12. Seo\*, J., Wagner, N., D'Souza, V. "The Effects of Upstream Nucleotides on the Readthrough Rate of VEGF-Ax," Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA; November 11-14, 2015.
13. Shillingford\*, S., Luca, O., Blackmond, D. "The Oxidation of Allylic Alcohols to Ketones with the use of Electrochemistry," Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA; November 11-14, 2015.
14. Trinidad\*, D., Lents, N., Guzman\*, S., Parziale\*, J., Lerer\*, A. "Analysis of the Human Microbiome on Living and Decomposing Bodies," Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA; November 11-14, 2015.
15. Zhang\*, Y., Zhang, G. "Diverse Copper(ii) Complexes with Simple Nitrogen Ligands: Structural Characterization and Applications in Aerobic Alcohol Oxidations in Water," Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, WA; November 11-14, 2015.

\* Denotes a PRISM student or alumnus.

## 2016 Collegiate Science and Technology Entry Programs Conference, Lake George, NY

1. Aguilar\*, W., Champeil, E. "Synthesis of  $\alpha$ - and  $\beta$ -monoadducts," Collegiate Science & Technology Entry Program (CSTEP) Statewide Student Conference, Lake George, NY, April 9, 2016.
2. Duran\*, L., Delgado-Cruzata, L. "Studying the Loss of DNA Methyltransferase DNMT1 in BRCA1 Expression in Breast Cancer," Collegiate Science & Technology Entry Program (CSTEP) Statewide Student Conference, Lake George, NY, April 9, 2016.
3. Fernandez\*, P., Chen, P., Han, C., Sagen, J. "Behavior Expression Profile of alpha-Conotoxin Pel A in Chronic Constriction Injury Model in Rats," Collegiate Science & Technology Entry Program (CSTEP) Statewide Student Conference, Lake George, NY, April 9, 2016.
4. Klafehn\*, E., Corthals, A. "2D to 3D Rending of Bones Samples from *Sus scrofa*," Collegiate Science & Technology Entry Program (CSTEP) Statewide Student Conference, Lake George, NY, April 9, 2016.
5. Mercado\*, A., Delgado-Cruzata, L. "Studying the Inhibition of TET Proteins in Liver Cancer Cells," Collegiate Science & Technology Entry Program (CSTEP) Statewide Student Conference, Lake George, NY, April 9, 2016.
6. Stewart\*, O., Domashevskiy, A. "Biophysical studies of Liposomal Pokeweed Antiviral Protein for HIV Therapeutics," Collegiate Science & Technology Entry Program (CSTEP) Statewide Student Conference, Lake George, NY, April 9, 2016.
7. Peralta\*, R., Mann, E., Carpi, A. (2016) "Using Moss as a Biomonitor to Detect Atmospheric Sources of Mercury," Collegiate Science & Technology Entry Program (CSTEP) Statewide Student Conference, Lake George, NY, April 9, 2016.

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## 2016 Society of Toxicology Annual Conference, New Orleans, LA

1. Metodieva, M., Simone, N., Seo\*, J., Ta\*, C., and Cheng, S.Y. "Maneb and Mancozeb Induce Senescence via p53, p27 and p15/16 Pathways" 55<sup>th</sup> Society of Toxicology Annual Meeting, New Orleans, LA, March 13-17, 2016
2. Seo\*, J., Huang\*, B.T., Cheng, S.Y., and Champeil, E. "p53-independent Activation of p21 in Response to Mitomycin C and Decarbamoyl

Mitomycin C" 55<sup>th</sup> Society of Toxicology Annual Meeting, New Orleans, LA, March 13-17, 2016

\* Denotes a PRISM student or alumnus.

## 2016 Experimental Biology, San Diego, CA

1. Aitbakieva\*, V., Domashevskiy, A.V. Comparison of Enzymatic Activities of Pokeweed Antiviral Protein (PAP) Isoforms toward RNA from Tobacco Etch Virus. *Experimental Biology: FASEB J.* 30:1083.12, San Diego, CA, April 2016.
2. De Los Santos\*, S., Domashevskiy, A.V. Examination of Turnip Mosaic Virus Genome-Linked Protein (VPg) as an Effective Novel Inhibitor of Ricin A Chain (RTA). *Experimental Biology: FASEB J.* 30:607.7, San Diego, CA, April 2016.
3. Rodriguez\*, D., Domashevskiy, A.V. Interactions of a Fluorescently-Labeled Tobacco Mosaic Virus (TMV) RNA with Pokeweed Antiviral Protein (PAP). *Experimental Biology: FASEB J.* 30:591.1, San Diego, CA, April 2016.

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## Other Conferences Attended

3. Hargett\*, I., Delgado-Cruzata, L. "Perceived Educational Barriers and Persistence of Minority Women in a STEM Major at John Jay College," 29th National Conference on Undergraduate Research, Spokane, WA; April 16-18, 2015.
4. Brathwaite\*, N.; Zhang, G. "Nonprecious Metal Complexes Based on Multidentate Ligands for Catalysis and Fluorescence Sensors", 63rd Annual Undergraduate Research Symposium (URS) of the American Chemical Society, Queensborough Community College, New York, NY; May 9, 2015.
5. Chiu\*, M., Tami, K., Kinahan\*, C., Ng, A., Proni, G. "Stereochemical Determination of Methamidophos and Ruelene, Organophosphorus Compounds," 250th ACS National Meeting
6. Sanchez \*, K., Klempner, S., Li, R. "Developing an Enzymatic Processing Method for the Forensic DNA Analysis of Bone Specimens," Women in Physical Sciences 2015, Lincoln, NE, October 15-17, 2015.
7. Klafehn, E. "Post Mortem Analysis of the Histomorphology of Trauma and 2D to 3D Rendering of Bone Samples from *Sus Scrofa*," 2015 Binghamton Research Symposium & Graduate School Application Retreat, Binghamton, NY, October 17, 2015

8. He, Y., Lopez\*, K, Wong\*, T., McNamara\*, C., Swenson, S. "Integrating Research into Instrumental Analysis Curriculum: Investigation of Environmental Pollutants in Hudson River", Environmental Consortium of Colleges & Universities, November 7, 2015.
9. Cofane\*, M., Diaczuk, P. "Examination of Wall Surfaces for Traces of Blood," ACSR 26th Annual Training Conference, Clark, NJ; February 9-11, 2016.
10. Hargett\*, I., Delgado-Cruzata, L. "Understanding the Role of TET Proteins on 5-Hydroxymethylation in Hepatocellular Carcinoma," CUNY/SUNY Annual Exploration & Observation: Undergraduate Student Research & Creative Activities, Albany, NY; February 24th, 2016.
11. Wong\*, T., McNamara, C\*, He, Y., Swenson, S. "Development of Interactive Learning Modules Used in Teaching Instrumental Analysis," Pittcon 2016, Atlanta, GA; March 6-10, 2016.
12. He, Y., Green, C., Chaney, R., Tan\*, F., Ye, H., Mei\*, V., Kurti, M., Lampe, K. V. "Elemental Profile of Tobacco Used in Counterfeit Cigarettes", Pittcon 2016, Atlanta, GA; March 6-10, 2016.
13. Lopez\*, K., He, Y., Swenson, S. "Determination of Cadmium in Environmental Water Samples Collected in Superfund Sites in New York City," Pittcon 2016, Atlanta, GA; March 6-10, 2016.
14. Mann, E., Khusial\*, R. Carpi, A. "A mechanistic investigation of the reduction and volatilisation of mercury in soil," 250th Annual Meeting of the American Chemical Society, San Diego, CA, March 15, 2016.
15. Khan Z\*, Lents NH. "Generating a Systematic Model to Approximate Time of Death by Examination of Taxonomic Differences Over Time in the Human Microbiome of Decomposing Bodies," 6th Annual Forensic Science Student Research Exchange, Cedar Crest College, Allen Town, PA. April 9th, 2016
16. Trinidad DD\*, Lents NH. "Using the Human Necromicrobiome to Estimate the Postmortem Interval," 6th Annual Forensic Science Student Research Exchange, Cedar Crest College, Allen Town, PA. April 9th, 2016.
17. Duran\*, L., Delgado-Cruzata, L., "Knockdown of DNA Methyltransferase 1, *DNMT1*, causes suppression of *BRCA1* Expression in Breast Cancer Cells", Eleventh Annual Student Caucus and Poster Presentation, American Association for Cancer Research Annual Meeting, New Orleans, LA; April 15-20, 2016.
18. Hargett\*, I., Delgado-Cruzata, L. "Understanding the Role of TET Proteins on 5-Hydroxymethylation in Hepatocellular Carcinoma," 11th Annual

- Student Caucus and Poster Presentation, American Association for Cancer Research Annual Meeting, New Orleans, LA; April 15-20, 2016.
19. Mercado\*, A. Hargett\*, I., Delgado-Cruzata, L. "Studying the inhibition of TET proteins in liver cancer cells," Eleventh Annual Student Caucus and Poster Presentation, American Association for Cancer Research Annual Meeting, New Orleans, LA; April 15-20, 2016.
  20. Rodriguez\*, R., Conrad\* K.C., Salcedo\*, E.C., Rauceo, J.M. "Analysis of Orf19.7296p in the *Candida albicans* Osmotic Stress Response," 2016 American Society for Microbiology (ASM) Microbe Conference Boston, MA; June 16-20, 2016.
  21. Trinidad DD\*, Lents NH, Guzman S\*, Parziale JV\*, Lerer A\*. "Using the Human Necromicrobiome to Estimate the Postmortem Interval. ASM/ICAAC Microbe 2016. Boston, MA. 17-June 2016.

\* Denotes a PRISM student or alumnus.

### Presentations about the Program

1. Ronan, D., Carpi, A. "Undergraduate Research Experience and Changes in Career Ambitions for Underrepresented Students in STEM," Annual Meeting of the National Association for Research in Science Teaching, Baltimore, MD, April 17, 2016.
2. Carpi, A., Ronan, D. (2016) "Creating Minority Scientists: How Undergraduate Research Drives Changes in Career Ambitions for Students Underrepresented in STEM Disciplines," 8<sup>th</sup> Conference on Understanding Interventions that Broaden Participation in Science Careers, Philadelphia, PA, February 27, 2016.

### Presentations at the 2015 PRISM Undergraduate Research Symposium

1. Aitbakieva\*, V., Domashevskiy, A. "Isolation and Characterization of Different Isoforms of Pokeweed Antiviral Protein (PAP) from *Phytolacca Americana*", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
2. Bell\*, B., Champeil, E. "Detecting Amoxicillin in Water-Based Media", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
3. Brathwaite\*, N., Zhang, G. "Metal Complexes Of Multidentate Ligands For Oxidation Catalysis And Fluorescence Sensors", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015

4. Brown\*, A., Kubic, T. "Identification and Individualization of Cosmetics by ATR-FT/IR, and Ramen Spectroscopy", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
5. Conrad\*, K., Rauceo, J. "Phenotypic Characterization of *HOT1* in *Candida albicans*", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
6. De Los Santos\*, S., Domashevskiy, A. "Analysis of the Effects of Turnip Mosaic Virus Protein-Linked Genome on Ricin A Chain Depurination of Eukaryotic Ribosomal RNA", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
7. Duffy\*, L., Klafehn\*, E., Corthals, A. "Post Mortem Analysis of the Histomorphology of Trauma in *Sus scrofa*", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
8. Duran\*, L., Delgado-Cruzata, L. "Investigating the Lost of DNMT1 in Breast Cancer Cells", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
9. Fernandez\*, N., Proni, G. "Development of New Reagents for the Detection of Latent Fingerprints on Porous Surfaces", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
10. Fernandez\*, P., Alexander\*, K., Rauceo, J. "The Yeast Chaperone Sse1 Plays a Novel Role in Processing Cell Wall Amyloid-Forming Adhesins", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
11. Guzman\*, S., Lents, N. "Analysis of the Human Microbiome in Living and Decomposing Bodies", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
12. Hargett\*, I., Delgado-Cruzata, L. "Perceived Educational Barriers and Persistence of Minority Women in a STEM Major at John Jay College", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
13. Khusial\*, R., Carpi, A. "The Role of Temperature and UV Light in the Reduction of Mercury (II) Chloride to Elemental Mercury", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
14. Kinahan\*, C., Chiu\*, M., Shillingford\*, S., Proni, G. "Separation and Spectroscopic Characterization of the Organophosphorus Compound Methamidophos", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015



15. Lerer\*, A., Lents, N. "Zinc Reduces the Detection of THC by ELISA Urine Testing, While Copper May Cause a False-Positive Result", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
16. Lopez\*, K., He, Y. "Determination of Trace Level Cadmium in Environmental Water via GFAAS and ICPMS", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
17. Mahon\*, G., Diaczuk, P. "Ballistics Examination of Rib Marks and Radial Fractures on Broken Glass", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
18. McNamara\*, C., Wong\*, T., He, Y. "Determination of Trace PCBs Concentration in Hudson River Water Using SPME-GC/MS", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
19. Meiner\*, H., Diaczuk, P. "Environmental Corrosion of Firearm Casings", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
20. Montes\*, J., Chang, S.Y. "The Effects of Manganese-Containing Dithiocarbamates on Activated Double Stranded RNA Dependent Protein Kinase (PKR) and Mammalian Target of Rapamycin (mTOR) Signaling Pathways", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
21. Napolitano\*, T., Petraco, N., "Interactive Bayesian Network Tool to Help Quantify the Weight of Evidence In Investigations", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
22. Oh\*, J.H, Johnson, H. "Distinguishing a Frog Species through a Mobile Application", PRISM Research Undergraduate Symposium, New York, NY; April 29<sup>th</sup> 2015
23. Phoenix\*, T., Zhang, G. "Fluorescent Metal-Terpyrdine Complexes as Probes for Toxic Heavy Metals", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
24. Proano\*, D., Svoronos, P. "Determination of the Total Amount of Antioxidants in Commercial Beverages", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
25. Reinfeld\*, S., Domashevskiy, A. "Mapping Out Interactions between Viral Genome-Linked Protein (VPg) from Turnip Mosaic Virus and Pokeweed Antiviral Protein (PAP)", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
26. Rodriguez\*, D., Domashevskiy, A. "Synthesis of Fluorescently-Labeled Tobacco Etch Virus (TEV) RNA and Its Interactions with Pokeweed

- Antiviral Protein (PAP)", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
27. Rouse\*, D., Carpi, A. "The Reduction Mechanism of Mercuric Oxide in the Environment", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
  28. Seo\*, J., Cheng, S.Y. "Effects of Mancozeb on SH-SY5Y: Cellular Senescence Study", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
  29. Sokolowski\*, D., Lents, N., "DNA-based Forensic Analysis of Plant Phylogenetic Identification Using Chloroplast DNA Derived from Plant Pollen and Plant Leaves", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
  30. Sanchez\*, S., Cheng, S.Y., "Cytotoxicity Study of Newly Synthesized Salen Compounds: Trypan Blue Exclusion Assay", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
  31. Tan\*, F., He, Y. "Determination of Trace Level Cadmium in Hudson River Water Samples Using Graphite Furnace Atomic Absorption Spectrometry (GF-AAS)", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
  32. Tan\*, J., Zhang, G. "Transition Metal Complexes of Novel Thiourea-Containing Ligands for Cytotoxicity Studies", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
  33. Texeira\*, C., Carpi, A. "Determining a Methodology of Quantifying Mercury in the Stems and Barbs of Bird Feathers", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
  34. Williams\*, D., Li, R. "Forensic Application of Diatoms through Phylogenetics", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
  35. Williams\*, S., Domashevskiy, A. "Examination of the Effects of Translation Initiation Factors on PAP-RNA Interactions", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
  36. Wu\*, H., Ahmad, A. "Network On Demand: The GNU-Radio", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
  37. Yakovishina\*, V., Sullivan, R. "Study of the Cytotoxic Effects of Carbon Nanotubes on Breast Cancer Cells", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015
  38. Yarde\*, S., Carpi, A. "The Role of Water and pH in the Reduction of Mercury (II) Chloride to Elemental Mercury", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015

39. Zhang\*, Y., Zhang, G. "Diverse Copper(II) Complexes with Simple Nitrogen Ligands: Structural Characterization and Applications in Aerobic Alcohol Oxidations in Water", PRISM Undergraduate Research Symposium, New York, NY; April 29<sup>th</sup> 2015

\* Denotes a PRISM student or alumnus.

## Presentations at the 2016 PRISM Undergraduate Research Symposium

1. Aguilar\*, W., Champeil, E. "Synthesis of MC and DMC Deoxyguanosine Adducts", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
2. Aitbakieva\*, V., Domashevskiy, A. "Isolation and Characterization of Different Isoforms of Pokeweed Antiviral Protein (PAP) from *Phytolacca Americana*", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
3. Bell\*, B., Uzagir\*, K., Champeil, E. "Detection of D- and L- Enantiomers of Amphetamine in Mixed Salt Preparation of Adderall", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
4. Brathwaite<sup>†</sup>\*, N., Kleiman, N., Frever, G. "Non-invasive detection of environmental stress using Translocator protein (18 kDa) (TSPO) in saliva", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
5. Brown\*, A., Kubic, T. "Attempted Identification and Individualization of Cosmetics by ATR-FT/IR Spectroscopy", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
6. Cofane\*, M., Diaczuk, P. "Detection and Visualization of Sheep Blood Under Latex-Based Paint", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
7. Day\*, J., Diaczuk, P. "Determination of the Angle at which a Bullet was Fired using a Trigonometric Method", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
8. De Los Santos\*, S., Domashevskiy, A. "Examination of Turnip Mosaic Virus Genome-Linked Protein (VPg) as an Effective Novel Inhibitor of Ricin Toxin A Chain (RTA)", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
9. Diaz<sup>†</sup>, J., Santella, R. "Nitrotyrosine levels among relatives from families participating in The Breast Cancer Family Registry", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016

10. Duran\*, L., Delgado-Cruzata, L. "Knockdown of DNA Methyltransferase 1, *DNMT1*, causes suppression of *BRCA1* Expression in Breast Cancer Cells", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
11. Edwards-Murdock\*, L.A., Diaczuk, P. "The Individualization of Same-Model/Polygonally Rifled Barrels By Introduction of Abrasive-Induced Striations", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
12. Faure-Betancourt\*, A., M., Williams\*, D., Li, R. "Identification of Diatom Species in New York City Waters for Drowning Investigations", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
13. Fernandez<sup>†</sup>\*, N., Graziano, J. "Potential Risk Factors of Lead Exposure in Children and Adolescents in Araihasar, Bangladesh", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
14. Fernandez\*, P., Alexander\*, K., Rauceo, J. "Identification of Putative Yeast Chaperones That Govern Processing of Amyloid-Forming Adhesins", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
15. Guzman<sup>†</sup>, A., Stansfield, K., Guilarte, T. "Dopamine D1 Receptor Levels in the Striatum after Lead Exposure", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
16. Hargett\*, I., Delgado-Cruzata, L. "Understanding the Role of TET Proteins on 5-Hydroxymethylation Levels in Hepatocellular Carcinoma", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
17. Jean\*, S., Rosati, J., "The Effects of Resource Level on Aggregation in Larval Blow Flies", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
18. Kennedy<sup>†</sup>, C., Jack, D., Chillrud, S., Smith, C. "Estimating Minute Ventilation from Heart Rate in New York City Bicycle Riders", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
19. Khan\*, Z., Trinidad\*, D., Parziale\*, J., Lerer\*, A., Guzman\*, S., Lents, H., Johnson, H. "Generating a Systematic Model to Approximate Time of Death by Examination of Taxonomic Differences Over Time in the Human Skin Microbiome of Decomposing Bodies", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
20. Klafehn\*, E., Corthals, A. "2D to 3D Rendering of Bone Samples from *Sus scrofa*", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016

21. Lopez\*, K., Good, K., Swenson, S., He, Y. "Determination of Trace Level Cadmium in Environmental Water", PRISM Research Symposium, New York, NY; May 4<sup>th</sup> 2016
22. Mahon\*, G., Diaczuk, P. "Examination of Rib Marks and Radial Fractures on Broken Glass After a Ballistic Event", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
23. McLean\*, R., Petraco, N., "Algorithmic Matching of 3D Tool Mark Topographies", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
24. Mercado\*, A., Delgado-Cruzata, D., "Studying the inhibition of TET Proteins in liver cancer cells", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
25. Montes\*, J., Cheng, S.Y. "The Effects of Dithiocarbamate Pesticides on Activated Double Stranded RNA Dependent Protein Kinase (PKR) and Mammalian Target of Rapamycin (mTOR) Signaling Pathways in Alzheimer's Disease", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
26. Morales\*, E., Kim, J., Concheiro-Guisan, M. "Cannabis Determination in Plasma by Liquid Chromatography Tandem Mass Spectrometry", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
27. Muyalde\*, M., Delgado-Cruzata, D. "siRNA knockdown of *DNMT1* in breast cancer cells", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
28. Nielsen\*, B., Napolitano\*, T., Champeil, E. "Synthesis of the Decarbamoyl Mitomycin C DNA Adducts", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
29. Oh\*, J.H., Johnson, H. "Distinguishing a Frog Species through a Mobile Application", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
30. Peralta\*, R., Mann, E., Carpi, A. "Using Moss as a Biomonitor to Detect Atmospheric Sources of Mercury", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
31. Phoenix\*, T., Zhang, G. "Fluorescent Metal-Terpyridine Complexes as Probes for Toxic Heavy Metals", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
32. Ramlogan<sup>†</sup>, A., Layton, A., Jack, D., Chilrud, S., Smith, C. "Validation Study of Collected Parameters by the Hexoskin vs. Laboratory Standards in the Potential Inhaled Dose of Pollution Exposed to Bicyclists", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016

33. Rodriguez\*, C., Roberts, M. "Identification of Illicit Compounds, Accelerants, and Potential P.O.I. by ATR-IR Analysis of Fingerprints", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
34. Rodriguez\*, R., Conrad\*, K, Salcedo\*, E., Rauceo, J. "Cellular Localization Analysis of Orf19.7296p in the *Candida albicans* Osmotic Stress Response", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
35. Rouse\*, D., Carpi, A. "The Reduction Mechanism of Mercuric Oxide in the Environment", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
36. Sanchez\*, K., Klempner, S., Li, R. "Developing Enzymatic Processing Methods for the Forensic DNA Analysis of Bone Specimens", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
37. Sanchez<sup>†</sup>\*, S., Lieberman, H., Broustas, C., "The Impact of MEK5 on Prostate Cancer Cell Survival", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
38. Seo\*, J., Cheng, S.Y. "Effects of Anti-cancer Drug Mitomycin C (MC) on MCF-7: S-phase Staining for Flow Cytometry", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
39. Shaw\*, S., Helen-Maras, H. "Mobile Device Safety via Encrypted Networks", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
40. Shillingford\*, S., Fontanes\*, E., Proni, G. "Separation and Spectroscopic Characterization of the Organophosphates Methamidophos and N-methylmethamidophos", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
41. Stewart\*, O., Domashevskiy, A. "Biophysical Studies of Liposomal Pokeweed Antiviral Protein for HIV Therapeutics", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
42. Tan\*, F., Mei\*, V., Hua, Y., He, Y. "Investigation of Toxic Heavy Metals in Counterfeit Cigarettes by Using Inductively Coupled Plasma- Atomic Emission Spectrometry (ICP-AES)", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
43. Tan\*, J., Zhang, G. "Transition Metal Complexes of Novel Thiourea-containing Ligands for Cytotoxicity Studies", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
44. Trinidad\*, D., Guzman\*, S., Khan\*, Z., Parziale\*, J., Johnson, H., Lents, N. "Using the Human Skin Necromicrobiome to Estimate the Postmortem

- Interval", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
45. Vandenburg\*, J., Diaczuk, P. "Evaluating the Trocar Design of the RIP Bullet", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
  46. Williams\*, D., Li, R. "Methylation Status of Tardigrade DNA Double Stranded Break Repair Protein Rad51", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
  47. Wong\*, T., McNamara\*, C., He, Y. "Optimization of a Solid Phase Microextraction Method for GC/MS Analysis of PCBs in Environmental Water" PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
  48. Wong\*, T., McNamara\*, C., Swenson, S., He, Y. "Development of Interactive Learning Modules used in Teaching Instrumental Analysis", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
  49. Wu\*, M., Lents, N. "The Genetic Characterization of Common Household Flower Species in Forensic Science", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
  50. Yakovishina\*, V., Metodieva, M., Simone, N., Seo\*, J., Ta\*, C., Cheng, S.Y. "A Confocal Microscopy Study of the Expressions of p53, p27, p21, and p15/16 in Response to Maneb and Mancozeb in PC12 Cells", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016
  51. Zhang\*, Y., Zhang, G. "Syntheses, structures and cytotoxicity of cobalt(II) complexes with 4'-chloro-2,2':6',2''-terpyridine", PRISM Undergraduate Research Symposium, New York, NY; May 4<sup>th</sup> 2016

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