



2016 SCIENCE TEACHER APPLICATION “T-ISP...Teacher Immersion Science Program”

Fox Chase Cancer Center
September 24, 2016 - November 12, 2016

Timeline

- *April 2013*: The high school training program, now known as the Immersion Science Program, at Fox Chase Cancer Center had its re-launch with the first bi-annual Health Careers Symposium. This was quickly followed by the pilot high school student program. What had been slated for only 8 seats, had such a positive application response that it was raised to 2 sessions of eight. We had an overwhelming sense of, “WOW! We can teach HIGH SCHOOL students to do cancer research!” Unfortunately, we could only reach 16 students. The idea to see the ripples in the pond spread faster came as the high school teacher Immersion Science Program (T-ISP).
- *Fall 2013*: We invited 4 local HS teachers to take a modified version of the student course. TWO of the teachers went on to utilize the techniques of the ISP in their home schools. WOOHOO!
- *February 2014*: We were the recipients of a private donation which funded our outfitting a mobile Footlocker. This rolling box of science is equipped with the materials needed for the teachers of our T-ISP to take the projects, techniques, and protocols from the Teaching Lab directly into their classrooms.
- *Fall 2014*: We were joined by three additional HS teachers. Again, we are excited to announce that 2 teachers are working to bring Immersion Science into their home schools, one via the Footlocker and one through cross-curricular work and readings of *The Inner Fish*.
- *May 2015*: We hosted the second bi-annual Immersion Science Health Careers Symposium and welcomed over 230 high school teachers and students to enjoy a day of talks and hands-on labs and demonstrations!
- *Fall 2015*: Welcome SIX MORE Philly-Metro-NJ Area High School Teachers to the Immersion Science Community; Dara Ruiz-Whalen was an invited presenter at the regional NSTA conference held in Philadelphia and shared some of the techniques that T-ISPs bring into their classrooms.
- *Winter(early)2016*: Alana O’Reilly is awarded an nSDB Education Activities Grant from The Society for Developmental Biology! Philadelphia School District: Academy at Palumbo and Abraham Lincoln high schools work collaboratively using the fruit fly as a model organism. Immersion Science Program: Outsourcing data collection to high school biology classrooms for mapping the effects of dietary components on *Drosophila melanogaster* development
- *Spring 2016*: Include Nazareth Academy (PA) and Kingsway Regional (NJ) high schools among those whose T-ISP participants have brought Immersion Science into their home classrooms.
- **2016-2017 School Year: See Immersion Science go out to MORE schools!**

Session Details

- Every Fall we host local high school teachers for a no-cost, 8 week program.
- This year we will run the T-ISP from Saturday, September 24, 2016 through Saturday, November 12, 2016.
- Each Saturday class will run for three hours, beginning at 9:00am and ending at 12:00pm.
- The course is run like a real cancer research laboratory, where experiments are set-up one week, performed the following week, and analyzed the third week. As a result, the most important requirement is that you be able to attend all of the sessions. In addition to the laboratory portion of the program, we will have 2 to 3 brief lectures, guest lectures, round table discussions, and wrap-up the session with a practicum day where you have the opportunity to trial your new classroom materials with ISP graduates.

Program Goal

- (1) The training of teachers in experimental approaches to cancer research and provide them with the materials to utilize the techniques, concepts, and experimental outline in their home schools in alignment with CORE curriculum and science standards and
- (2) The development of a research training program that will enable teachers and their students to partake in real-time cancer research experiments using (a) dietary supplements and (b) the fruit fly as a model organism.

Feedback from Teacher Participants

"One of my colleagues participated in the Career symposium in the spring and told me that I should check out the teacher program. I decided to apply and enroll in the program and quickly realized it was unlike any other program that I have participated in as a teacher. I enjoyed working with and learning from Dara & Alana and my fellow classmates were awesome!

As a teacher, I am constantly looking for ways to prepare my students for college and careers in science. This program is absolutely what I was looking for. I am glad that I have developed a relationship with the ISP team because I know they will help me grow as a teacher and support my students in conducting cancer research in the classroom." –J. Stark, Kingsway Regional HS ('15)

"I thought that this was a great opportunity to update my knowledge and lab skills in the area of genetics. My students were participating in the program and they were teaching me new things as their experiences grew. I wanted to keep up with them" –N. Ferrant, N Penn HS ('14)

"The workshop allowed me to think and experience the moment as the student. That set my mind into the planning stage and helped me think about how I could incorporate this experience into my classroom.... My goal is to continue to develop this experiment each year. This development I hope will help instill in my students the fascination of learning and discovering science beyond the textbook." – C. Aichele, Academy at Palumbo HS ('13)

"The T-ISP program was a refreshing, productive way to spend a bunch of Saturday mornings. Working with engaged and curious educators from around the region, tuning up lab skills, participating in active cancer research while applying developmental biology, molecular biology, and genetics concepts- and getting to brainstorm connections to the high-school curriculum. So fun. Well worth your time if you're looking to move your class out of the textbook and into the 21st century." –G. Cohen, Central HS ('15)

"I had the opportunity of working and sharing ideas with other teachers I may not have had the good fortunate of otherwise meeting. This was time well spent and I encourage other teachers to embrace this pivotal opportunity" – P. Miller, Abraham Lincoln HS ('13)

"I am truly grateful for the opportunity to participate in the Immersion Science Program. I was very interested in the mission of this program and then completely amazed by both Dara's and Alana's dedication to providing a program that creates and entices science research opportunities for high school students and teachers. As a science educator, I love the learning process, and this program allowed me to become a student again while creating great lessons to bring back to my own classroom. The pedagogy between the science teachers during our time in the ISP lab was very refreshing and productive. We had great brainstorming sessions and a lot of laughs. Now my students in my Freshmen Honors Biology class are excited to continue the research project started at T-ISP." – K. Gallen, Nazareth Academy HS ('15)

The Selection Process

- This is a competitive application process, where new school representatives will be given priority.
- Applications will be reviewed in a blinded fashion and rated by a committee of 6 to 10 people. Only one of them will be an educator by profession, so remember to limit buzzwords. For example, most non-educators will not know what "integrated classroom" means.
- After the committee ranks all of the applications, the top 4 candidates will be placed on the roster first. Candidates 5-8 will be listed as alternates and placed at the top of the contact list for 2017.
- All candidates will be notified of their placement, via **email**, by July 8, 2016.
 - Because the session is currently limited to 4 teachers, registration will close once the workshop is filled.
 - Waitlist/additional sessions/greater enrollment may be added (Dependent on size of wait-list and instructor availability)

On-Boarding Process

The on-boarding processes for both our Student ISP and Teacher ISP are completed through the Fox Chase Cancer Center Offices of Volunteer Services. Information regarding this process will be included in "welcome" materials to be sent to Fall 2016 participants.

Want to Learn More?

- For more information please contact Dara Ruiz-Whalen ImmersionScience.FoxChase@fcc.edu
- To submit an application, please download our T-ISP Application and email to the address above.
 - **Registration Deadline: Monday, June 20, 2016** via email or postal delivery (Below)

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