

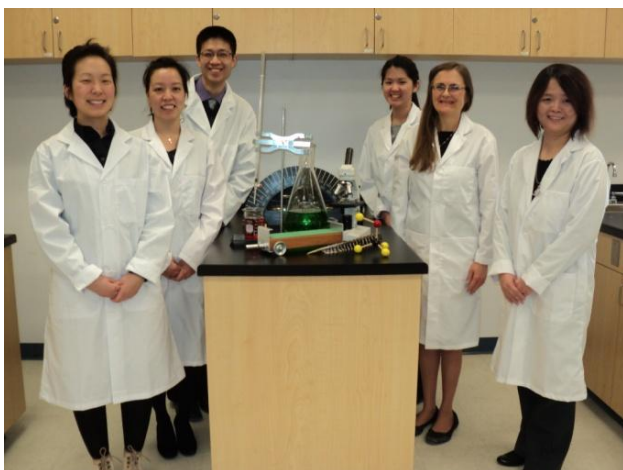
## SCIENCE AND TECHNOLOGY – Alive and Well at PCA Senior School

Science Technology Engineering and Math (STEM) are flourishing at PCA! Our team of highly qualified teachers is pushing the boundaries of normal high school engagement. Classes are engaged in lab investigations, outdoor explorations, creating projects and university preparation competitions. The team seeks to introduce the students to varied and challenging activities that require innovative and disciplined focus.

The following brief account provides some examples of how our team of teachers are leading our students into new paths of discovery and expecting them to perform beyond the norm.

**Mrs. Daisy Tam** has been our Grade 12 Chemistry teacher for 12 years. In Chemistry, under the direction of Mrs. Tam, aside from lab activities and investigations, students each year enjoy researching, writing and designing a Chemistry magazine. They choose an area of chemistry of interest to them and produce very professionally written articles compiled into a themed magazine.

**Miss Stella Mok** teaches both science and math. Last semester, in Grade 11 Biology, her students completed a Human Diseases Symposium where they became an expert on their selected topics and prepared an in-depth presentation about the disease, its symptoms, causes, and treatment. They also dissected fetal pigs to explore animal anatomy. This semester in Grade 9 Science, she will be leading the students to explore the topics of Space & Astronomy by beginning with a space challenge where the students will simulate the fast-paced environment and decisions that occur in a space shuttle and command centre.



PCA Senior School STEM Team: (from left) Miss P. Kim, Mrs. D. Tam, Mr. T. Chung, Miss S. Mok, Mrs. J. Paas and Mrs. J. Chan.



PCA Biology students extracting DNA.

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**Miss Priscilla Kim** teaches both Grade 11 and 12 Physics courses. She has also taught Advanced Functions and other math courses. Miss Kim has developed a couple of her own lab activities to be used alongside those prescribed by the Ministry of Education. For example, in her Grade 12 Physics classroom, each year, Ms. Kim sets up an imaginary car collision site in which her students apply physics concepts in accident reconstruction, complete real collision reports, and assign fault to one of the drivers in the collision. Field trips to Laser Quest and Wonderland have been used to experience physical concepts discussed in the classroom. Her commitment is to make even the most difficult concepts accessible and applicable to every student, which is not always an easy feat in the senior courses!

**Mr. Taurus Chung** is the most recent addition to our STEM team. He has a rich background in math and the sciences. Mr. Chung brings the same passion to his courses as is shared by the other team members. He leads his classes into interesting demonstrations, labs, and projects. Some of the processes explored include synthesis and decomposition reactions, displacement reactions, reflection and refraction of light, and frog dissections. Videos and simulations have been used to demonstrate scenarios that are not possible in a typical science laboratory, and to reinforce the concepts.

**Mrs. Jennifer Chan** brings much experience to the classroom. She teaches Grade 12 Calculus and Advanced Functions, Grade 10 and 11 Math, and Grade 9 Technology. To ensure that her classes are relevant and challenging she makes efficient use of technology, such as a write-on tablet and PowerPoint projector. This enables the students to listen, focus and see better during the lesson instead of busily copying down the notes from the board and losing track. In Calculus & Vector, extra content to the Ministry of Education curriculum requirements are added to this course in order to help students to be more well prepared for the first year university math course.

Mrs. Chan helps prepare our students for participation in various math competitions, such as Waterloo Pascal, Cayley, Fermat, Euclid, and Canadian Junior and Senior Math Contests. Most recently, our top students were at the 97.4 percentile (top 2.6%) and at the 96.5 percentile (top 3.5%) province-wide and were on the provincial Student Honor Roll.

**Mrs. Jocelyn Paas** has over 25 years experience teaching Science at various levels, including Grades 9 and 10 Science, Grades 11 and 12 Biology and Grade 11 Environmental Science. She also teaches Environmental Science at **Tyndale University College** and is leading a workshop at an Environmental Science Conference at UOIT this Spring.

Some exciting adventures her Environmental Science class has experienced this semester are following animal tracks on the frozen Rouge River and creating Environmental Impact Assessments for the meadow ecosystem behind PCA's property. The Grade 12 Biology students are given ample opportunities to engage in investigations and are well experienced at writing university level lab reports, **which have earned compliments from a post-doctorate student at the University of Toronto.**

Both **Mrs. Paas** and **Miss Mok** are active in the **Science Teachers Association of Ontario**; Mrs. Paas serves as the Vice President and Secondary Curriculum Committee Chairman of this organization which has a vision for equipping science teachers across the province.

We are especially fortunate at Peoples Christian Academy to have a Science department that challenges students to go beyond the norm in their pursuit of knowledge. The Science Technology Engineering and Math department at PCA is a challenging and exciting place to be!

## April 13 – 18 is Founders Week

Peoples Christian Academy has the distinction of being founded by visionaries, Dr. Oswald J. Smith and Dr. Paul B. Smith, who shared a passion to make a difference in the world for God. More of their story will be told in a special all-school assembly that is scheduled for 9:00 am on Monday, April 13. The assembly will kick off Founders Week when we focus on the global vision of the Smiths and our inherent responsibility to be missional – to carry a passion to reach the world for Christ. Parents are invited to this special chapel service.



Dr. Paul B. Smith, Dr. John Kao who prayed the prayer of dedication at PCA's new location at 245 Renfrew Drive, and Dr. Oswald J. Smith

Founders Week will wind up on Saturday, April 18 with a gala event featuring the former pastor of The Peoples Church, Dr. John Hull, as the speaker. Dr. Hull will be sharing a challenging message on the subject, "*The People Who Make A Difference.*"



Dr. John Hull



Award winning vocalist and PCA alumna, Ali Matthews will be singing.

Details of the gala event, including a silent auction, are available at [www.pca.ca/gala](http://www.pca.ca/gala).

Ali Matthews

## 2015/2016 Enrollment

We have now completed our preferred re-registration for current students returning for the 2015-2016 school year. Thank you to those parents who have already submitted re-registration for their child(ren). Judging by this past year's trend, classes fill up very quickly and classroom space dictates the maximum numbers we can accommodate in a given class. We want you to keep this in mind as we have now begun accepting new students. If you have not yet done so, please submit the re-registration for your child(ren) before any remaining spaces are filled with new students.



### Mark Your Calendar

- March 6:** Junior/Middle Schools Term 2 Report Cards
- March 9 - 20:** *March Break*
- March 23:** School Resumes
- March 26:** Junior/Middle Schools Parent/Teacher Interviews (by invitation only) 4:00 - 7:00 p.m.
- March 31:** SK & Gr.8 Graduation Photos
- April 1:** Senior School Term 2 / Semester 2 Mid-Term Report Cards
- April 3:** *Good Friday* (school closed)
- April 6:** *Easter Monday* (school closed)
- April 9:** Senior School Semester 2 Parent/Teacher Interviews (4:00 – 7:00 p.m.)
- April 13 – 17:** Founders Week
- April 18:** PCA Advancement Dinner & Silent Auction Gala (5:00 – 8:00 p.m.)