

**2014-2015 OCUFA TEACHING AND
ACADEMIC LIBRARIANSHIP AWARDS
CITATION FOR DR. PIPPA LOCK**

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Ontario Confederation of University Faculty Associations
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CITATION FOR DR. PIPPA LOCK

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This citation begins by acknowledging that the OCUFA Teaching and Librarianship Awards Committee has read many teaching philosophies over many years, but this is quite likely the first time that a nomination dossier has started, literally, with a BOOM!

While I will return to the BOOM later, for now it serves as a powerful metaphor describing the effect of the nomination of Dr. Pippa Lock, Professor in the Department of Chemistry and Chemical Biology at McMaster University, on the members of the Awards Committee. Dr. Lock's tremendous skills in, and passion for, science education are equally impressive both in and out of the classroom.

Teaching innovations course through Dr. Lock's veins. She engages students in "lecture skit demonstrations," such as one for which she asks students to arrange themselves as atoms to demonstrate VSEPR theory; in the process, exercising students' kinesthetic intelligence. She uses "exit cards" and end-of-class quizzes to get a handle on students' understanding of lecture material. She holds online evening office hours, uses podcasts and flips classrooms.

Dr. Lock was awarded a Learning Innovation Grant from the Imperial Oil Foundation to redevelop large first and second year service courses. As Year One Chemistry Coordinator, she has revolutionized first year Chemistry at McMaster, impacting the education of some 2500 undergraduate students each year. In the words of her nominator, "The transformation comprised a series of pedagogical innovations designed to homogenize the course content and delivery across all lecture sections, enliven the subject matter, and (above all) to enhance students' learning and appreciation of the role that chemistry plays in their lives." Due to these innovations and the all-around high-quality of Dr. Lock's teaching efforts in first year Chemistry, the enrolment in second year Chemistry at McMaster has grown five-fold in recent years.

Despite being in a primarily teaching position, Dr. Lock engages in the scholarship of teaching and learning, supervising undergraduate honours thesis students on projects related to science



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education. She has authored or co-authored six teaching-related publications and presented or co-presented 49 teaching-related presentations at various conferences.

Beyond the classroom, Dr. Lock championed the development of resources to help address student learning issues such as anxiety and mental health. As lead of the Department's Recruitment, In-reach and Outreach Committee, she has expanded McMaster's presence at the Bay Area Science and Engineering Fair for students in Grades 7 through 12, in addition to founding a student award at the fair. Clearly, Dr. Lock's teaching excellence impacts students at and beyond McMaster.

In closing, I would like to return to the BOOM referred to earlier. Dr. Lock has been known to begin class by exploding a balloon into a burst of flames. The effect on students is astounding – complete silence followed by an eruption of cheers and excited discussion. To quote Dr. Lock, “Sometimes I can't believe I get paid to do this! Honestly, I'd explode balloons for free.” This is yet another example of her highly engaging teaching, and is likely one of the reasons for which students have nicknamed her “Mama Chemistry.” I'd like to finish with one last quote, this one from a student, and which simply says it all: “Dr. Lock loves chemistry and teaches it with every fibre of her being.”

Please join me now in congratulating Dr. Pippa Lock, an outstanding and highly deserving recipient of a 2015 OCUFA Teaching Award.