Plenary Speaker, May 28th
Yann Brouillette
(Dawson College)

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BIOGRAPHY

Dr. Yann Brouillette obtained his masters (M. Sc.) in organic chemistry from *Université de Montréal* (Québec) in 2005 and his doctorate (Ph. D.) in organic chemistry from *Université de Montpellier* (France) in 2008. A chemistry professor at Dawson College in Montreal (Québec) since 2009, Yann has been a devoted member of the Active Learning Community and collaborated on the development of multiple free online pedagogical tools. As the creator and host of the YouTube channel "Chem Curious", Yann is always looking for new ways to engage students in the learning of science. In January 2014, he created the new complementary course for non-science students entitled "Comic Book Chemistry" where he uses situations depicted in graphic novels to explain basic chemistry. Teaching during the day, and writing at night, he enjoys guess-lecturing and co-writing pop culture chemistry articles. Overall, Yann Brouillette is not a *mad* scientist, he's always a *happy* chemist.

PLENARY CONFERENCE ABSTRACT

Comic Book Chemistry: Adding Superheroes to your Solutions

A picture is worth a thousand words, or a thousand memes nowadays. But are these words coming from the teachers or the students, or from a constructive dialogue between all? In an era where chemical-free texting has replaced purell-free high-fives, engaging with students requires chemistry instructors to find new ways to share their love for molecules.

Fictional superheroes often have origins and powers due to biological transformations and technological advancements beyond the credible scope of modern science. However, distilling scientific notions emanating from such tales as Thor's hammer, Iron Man's armor, and Captain America's serum, offer opportunities to learn about actual wonders of the natural world and original technical accomplishments.

Without a Hulk smash to separate the plausible from the sensational exploits of superheroes, the power of the "atomic farce microscope" will be applied to discern the credible from the incredible. A fun and critical look at rational explanations describing out-of-the-ordinary events impersonated by heroes seen in movies, TV shows and graphic novels will be investigated. Comic books and chemistry can team-up to strengthen pedagogical approaches to learning via STEAM-based lectures, videos and class projects. Unlike the locations of secret lairs, freely accessible pedagogical resources and tips will be shared. As *Optimus Prime* would agree, chemical transformations offer more than meets the eye.