Our Motivation and History:
In 1985, women received 29% of the bachelor’s degrees awarded in chemical engineering (ChE) nationwide. By 2013, nearly thirty years later, this number had barely improved (32%). At Cornell, Engineering admits and graduates over 40% BS women, and ChE affiliations are often over 50%. In contrast, the percentage of women chemical engineering MS/PhD students has stubbornly stalled at around 30%. This situation mirrors the national picture where women are still less likely than men to hold management positions in industry and more likely to leave engineering: in 2011, only 22% of professional chemical engineers were women, despite the growing numbers of women BS chemical engineers.

Cornell’s Chemical and Biomolecular Engineering Graduate Women’s Group (CBE Women) was established to address the lack of women in our graduate program with programming targeted at encouraging women to enter and remain in STEM fields and to thrive professionally. Founded in 2008, and led by Prof. Susan Daniel, we represent more than 50 female graduate students and post-docs in the School of Chemical and Biomolecular Engineering at Cornell.

We are the main organizer of outreach and professional development for chemical engineering graduate students. While our programs are focused on issues particularly important to female students, they are open to all, men and women alike.

Our Mission:
• To focus on issues pertinent to female members of the department
• To provide leadership, networking, and personal growth opportunities for women in chemical engineering through targeted professional development events
• To encourage younger female students to consider careers in STEM, with a particular focus on the merits of chemical engineering

Professional Development:
To provide our female graduate students and postdocs with the skills needed to succeed in their careers and make them valuable future employees, CBE Women organizes regular seminars and workshops aimed at promoting professional development. We offer seminars on diverse topics selected based on student input.

Recent workshop topics:
Mastering the job search process
Patents and entrepreneurship
Negotiation techniques
Communicating science to the public

https://cbegwg.cbe.cornell.edu
Outreach Programs:

We believe strongly in reaching out to younger female students to inspire them to enter STEM fields. We are active participants in Cornell-wide events, like the middle school level “Expanding Your Horizons” program and the high school level CATALYST and CURIE academies. Through these events we give female students a taste of the research and career possibilities in chemical engineering through interactive lab demos and short research talks.

Our own flagship outreach event is the WOMEN (Women’s Outreach in Materials, Engineering, and Nanobiotechnology) event, which we have been organizing annually for the last 5 years. Last March, we brought 41 high school girls from rural schools to Cornell for a day, exposing them to the field of Chemical Engineering through a series of hands-on lab modules. While the students attend these scientific workshops, their parents are given information on college financial aid and admissions to help them support their daughters through the application process. Based on feedback from the high-school women who participate, the event is always a resounding success. More than 90% of the student attendees report their intention to enter a STEM field in our follow-up survey.

Help Us Expand Our Reach:

In 2014, we began a new seminar series in which we invite engineering alumnae in industry to speak about their career path and offer advice to current students. We are particularly interested in hosting young engineers from industry who can help our graduates transition from academia and understand what skills are necessary for a successful career. Our first speaker (Martha Jones, ’97, Intel) received very positive feedback from students. They appreciated the chance to meet one-on-one with an experienced industrial engineer and felt the seminar addressed an unanswered need to expose students to the career opportunities available in industries that hire chemical engineering PhDs. We would like to expand the program beyond one speaker per year, but we lack the funding to do so.

Our current outreach programming offers high-school students invaluable opportunities to explore STEM subjects. However, we would like to begin targeting younger students via a targeted age-appropriate set of activities to spark their scientific curiosity. By showing young school girls the fun side of engineering and exposing them to role models of women in engineering, we hope to increase the number of girls choosing to study STEM subjects in high school and college. This is a critical strategy to increase the pipeline of women in STEM.

We have a long list of alumnae we would like to invite as seminar speakers, and enough enthusiastic volunteers to staff many additional outreach events, but, in order to expand these two programs, we need more funding. Our current support from the Graduate School covers our professional development workshops and our signature WOMEN outreach event, but leaves us without the funds to expand our outreach to young girls or to continue to host career seminars.

We hope that you will consider our proposal as a way to continue your well-established commitment to outreach, diversity and inclusion. Not only would your support address the pressing issue of encouraging women in STEM, it would inspire the next generation of female engineers.