

**Applicants:**

Barbara M. Hopkins, Associate Professor of Chemistry  
Richard J. Mullins, Assistant Professor of Chemistry

**Signatures:**

Daniel J. McLoughlin, Chair, Department of Chemistry

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Janice B. Walker, Dean, College of Arts and Sciences

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**Title:**

Women of Xavier Chemistry: A Colloquium of the Decades, Proposal for WOX Grant

## **Women of Xavier Chemistry: A Colloquium of the Decades**

Amount requested: \$5500

**Abstract:** This project will bring four women graduates of the Chemistry Department, one from each decade beginning in the seventies, who have attained an advanced degree in a scientific discipline, to campus to interact with students and faculty of the department. These women will each present a seminar of a scientific nature and will discuss especially with the female students the challenges that they have faced as graduate students as well as in their careers. Following the series of four seminars, the grant will also support an opportunity for all local alumnae to return to campus. Through this project our present female students will receive advice, mentorship, and opportunities to meet alumnae who may serve as role models as these students face career choices. Success of the program will be evaluated through a survey of students as well as through anticipated new relationships formed between the department and its graduates.

**Budget:**

**1970 Speaker (TBD)**

Speaker Travel	\$400
Speaker Lodging	\$200
Gift for Speaker	\$100
Dinner for Speaker and Students	\$300

**1980 Speaker (TBD)**

Speaker Travel	\$400
Speaker Lodging	\$200
Gift for Speaker	\$100
Dinner for Speaker and Students	\$300

**1990 Speaker (TBD)**

Speaker Travel	\$400
Speaker Lodging	\$200
Gift for Speaker	\$100
Dinner for Speaker and Students	\$300

**2000 Speaker (TBD)**

Speaker Travel	\$400
Speaker Lodging	\$200
Gift for Speaker	\$100
Dinner for Speaker and Students	\$300

**Alumnae Chemistry Social Gathering**

Food, drinks and room rental	\$1000
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**Student Coordinator\***

Salary	\$500
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**Total Requested** **\$5,500**

\* The student coordinator will make travel arrangements for the speakers, advertise events, make restaurant reservations and handle all other administrative tasks as they arise.

**Minimum Amount Necessary:** The amount requested for travel is probably the minimum necessary to ensure that distance from Cincinnati will not be a factor in whom we choose to bring to campus. Additionally, the amounts requested for meals have been set to ensure that all interested students would be able to have dinner with the speakers. Should the review committee and the WOX Giving Circle membership feel our proposal is fundable, but at a lower level of support, we would simply invite local alumnae with lower travel costs and perhaps also limit the number of students that can have dinner with the speakers. Additionally, the student coordinator will make every effort to minimize expenses, such that unused funds can be returned to the WOX Giving Circle.

At the national level, the participation of women in the sciences, and especially chemistry, has historically been disproportionately low. Although strides are being made, recent data indicates that just 33.6% of all doctorates in chemistry are awarded to women. The number for chemical engineering is even lower, at 25.0%. Although the cause of this problem has not been specifically identified, there are several hypothetical reasons for this discrepancy. There has been postulated to be an unconscious bias against women in the scientific fields, as well as a shortage of role models and mentors for women in the technology fields as they begin choosing their career path. Others have suggested that women are typically inclined towards fields where they can interact more with people, and therefore avoid science and technology fields. While there are certainly a variety of opinions regarding the root causes of the dearth of female scientists, better mentoring for our female students will allow them to be more educated in making the important decisions regarding their career paths. As such, our proposal will address this need, by bringing together our female students and former Xavier students who have been successful in obtaining advanced degrees as well as utilizing them in a variety of career settings.

Our program will feature a year-long speaker series featuring female graduates of the chemistry department at Xavier University. Specifically, a graduate from each of the four decades during which women matriculated at Xavier University will be chosen to participate. The visit will typically occur on a Friday since that is when we have our regularly scheduled departmental seminar. While students from a number of disciplines will be invited to attend, the Friday seminar will ensure maximal attendance at the lecture.

Upon arriving on campus, the speaker will have lunch with faculty in the chemistry department, allowing them to become reacquainted with old friends and happenings in the department. This will ensure that the colloquium helps strengthen the ties between the department and its alumnae. Additionally, it would be expected that these alumnae would want to see how the campus has changed over the years; thus they would be taken on a tour of campus. As mentioned previously, the seminar will be given early in the afternoon and will focus on what the alumna currently does in her profession, likely to involve some form of chemistry or scientific research. As well, she will discuss her experiences earning the Ph.D. and the path followed toward her current career. Later, in individual meetings with interested students, the specific challenges of being a woman in science will be discussed, with a focus on how the speaker overcame these challenges. Following the seminar, the speaker will have dinner with all interested female chemistry and chemical science majors so that further discussions can commence in a more informal setting, thus concluding the visit. As mentioned previously, there will be four visits of this type with one speaker from each decade.

At the end of the colloquium series, local female graduates of the chemistry department will be invited back to engage our students and faculty in a more social setting. Depending on the level of interest, this event might be a catered event on campus or take place at a local restaurant. This event will strengthen the ties between the department and its alumnae and allow for better mentoring of our female students with graduates taking a more active role in this process.

This project enhances the mission and purpose of the Women of Excellence Giving Circle and furthers the mission of Xavier University in a number of ways. By giving our female students better mentoring and career guidance, we hope to help them find fulfilling careers. The students and alumnae who participate are more likely to becoming members of the Giving Circle, especially since they will have directly benefitted from the project.

The WOX Giving Circle will be recognized at various stages. Along with making arrangements for the visits, publicizing the work of the Giving Circle will be one of the primary jobs of the student coordinator. The WOX Giving Circle will be actively featured in all advertising for the colloquium. Special flyers and brochures will be printed for each seminar, with the mission of the WOX Giving Circle included. While introducing each speaker, this information will be directly disseminated to the group by the student coordinator. The gift which will be given to each speaker will in some way recognize the WOX Giving Circle for making the award and event possible. Finally, at the end of the year, all of our local women alumnae will be made aware of the work of the Giving Circle, and will be encouraged to get involved with the organization.

We expect the colloquium to have broad impact. All of our chemistry majors, male and female, will benefit from the scientific talks given by our speakers. Additionally, our female chemistry majors will benefit from the opportunity to interact more directly with the speakers to learn about their career experiences. Our faculty will benefit by becoming reacquainted with the alumnae, opening doors for greater communication and collaboration between the two groups. The alumnae who come to visit will hopefully be impacted by seeing the great things ongoing at Xavier. Finally, the culmination of all of these things will hopefully result in a direct benefit to Xavier itself and the WOX Giving Circle, as more awareness of this program will likely result in greater participation and support from these alumnae.

The success of our project will be evaluated in a number of ways, both quantitative and qualitative. Principally, our female students will be surveyed at the end of the year to measure how they feel they have been impacted by the colloquium and the end of the year gathering. Perhaps more important, however, will be the long-term and less measurable aspects of the project. Amongst these, we hope that this project will result in our current students being able to make more educated decisions on their futures, enabling them to find suitable careers which are compatible with their life goals. Our project will be a success regardless if these careers are in science or not, since it can be expected that the guidance and mentorship we provide them will lead them to finding rewarding careers, even if in a non-scientific discipline. We additionally expect that this program will increase the interactions between the department and its alumnae, opening doors for future collaborations with these former students. Finally, our efforts to publicize the funding source of the project will expose a significantly sized group of alumnae to the work of the Women of Excellence Giving Circle, likely resulting in an increase in contributions and/or participation in its work.

Should our work be funded, we would certainly be happy to speak at WOX events regarding our project. In addition, a summary of the year's events will be prepared for the committee, including the results of the survey taken at the end of the year.