



Community Engagement by Cancer Scientists

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Abstract

Through the Engaged Cornell initiative, we have established a new curriculum designed to promote interactions between Cornell students and cancer patients from the local community and to teach students how to communicate about cancer research to the public. This initiative stems from an ongoing collaboration between Cornell cancer researchers and the Cancer Resource Center of the Finger Lakes, a local organization that provides support services for cancer patients. The existing program includes a monthly meeting at which trainees present cancer research topics in lay terms to audiences of cancer patients and other community members. We have formalized and expanded this program by creating a graduate certificate program in public communication designed for graduate students doing cancer research. We expect that this curriculum will provide trainees skills in science communication and expose them to the patient perspective on issues in cancer biology. Community members will gain important information about cancer and Cornell research, while also having the opportunity to engage with cancer scientists. We anticipate that this program will provide novel, high impact experiences for both Cornell trainees and community members in a sustainable manner.



Engaged Cornell

The 10-year Engaged Cornell initiative, which started in October 2014, is charged with promoting innovation in community-engaged and real-world learning, and making those practices the hallmark of the Cornell undergraduate experience. The initiative was launched with a \$50 million gift from the Einhorn Family Charitable Trust. Engaged Cornell will strengthen engagement resources throughout the university and support the design of curricula aligned with department, college and university wide learning goals, tailored to each major and minor. To make this happen, Engaged Cornell competitive grants will be awarded to teams of departmental faculty. Other programs will support leadership and research programs open to all students. The Community Engagement by Cancer Scientists program is funded by an Engaged Curriculum Grant. Engaged Curriculum grants enable departments, programs, and collaborative cross-disciplinary groups in any field of study to design courses that connect the materials and inquiries of their disciplines with a relevant public venue, context, or challenge, through direct interaction with a community.

Certificate Program

The graduate certificate program is comprised of 3 workshops and an associated seminar series. An existing workshop "COMM 5660 Science Communication" has been coupled with new offerings on "Scientific Writing for Public Audiences" and "Social Issues in Community Engagement by Cancer Scientists", which together will train students to effectively communicate with the public about cancer biology. The seminar series centers on student presentations to community members and also includes invited speakers and book discussions. In order to receive the Graduate Certificate of Engagement in Public Communication of Science and Technology, students must successfully complete the following 4 courses.

Course 1

Title: Science Communication Workshop (COMM 5660)

Semester(s) offered: Fall, Spring

Length of course: 2-day workshop

Brief course description: This intensive weekend workshop introduces graduate students and post-docs in the sciences (including natural sciences, engineering, experimental social sciences, etc.) to communication of science and technology (including controversial topics such as climate change or GMOs) with nonscientists such as policy makers, political stakeholders, the media, and the general public. Activities include panel discussions, role-playing, mini-lectures, hands-on practice in writing press releases and other outreach materials, real-time practice in being interviewed for the media, and discussion with invited speakers.



Bob Riter (right) joined with (from left) Sachi Barakua, Jack Stojanski, Joanna Mendez, and Claire Anderson.

Course 2

Title: Scientific Writing for Public Audiences

Semester(s) offered: Spring

Length of course: 2-day workshop

Brief course description: This workshop will build on the existing Science Communication Workshop (which introduces many types of public communication of science) by focusing entirely on writing for and speaking to non-science audiences. It will feature didactic instruction on writing and speaking, with particular attention paid to blogs and local media stories. Writing a lay scientific abstract, a common requirement for grant applications to funding agencies that support cancer research, will also be addressed. Practical exercises will have the students prepare written documents and critique the work of classmates. Faculty instructors and community members will provide additional feedback.



Bob Riter (left) and Prof. Bob Weiss (right) being presented Town Gown awards by Michael Kostlioff, Dean of Cornell's College of Veterinary Medicine.

Course 3

Title: Social Issues in Community Engagement by Cancer Scientists

Semester(s) offered: Spring

Length of course: 2-day workshop

Brief course description: The goal of this intensive weekend workshop is to provide students an understanding of social issues of relevance to cancer patients. Topics to be covered will include: decision making and emotional issues for cancer patients; drug pricing and the costs of cancer therapy for individuals and society; population-specific variations in cancer risk; and patient rights and privacy issues. In addition to conventional lectures, the workshop will include a panel discussion by cancer patients and survivors on their experiences and the challenges of battling cancer. Individual students also will interview a community member from the CRCFL, which they will summarize in oral presentations to the class. Bob Riter, CRCFL Director and author of the book "When Your Life is Touched by Cancer: Practical Advice and Insights for Patients, Professionals, and Those Who Care" will present on empathic listening and supporting others with cancer.



Bob Riter, director of the Cancer Resource Center of the Finger Lakes, at a Sept. 10 seminar on the journeys of cancer survivors. To Riter's left is cancer survivor Maki Inada.

Course 4

Title: Community-based Cancer Research Presentations and Discussions

Semester(s) offered: Spring

Length of course: 12 weeks

Brief course description: This seminar series will provide a forum for interactions between cancer research trainees and cancer patients. The primary activity will be student presentations on topics in cancer research in lay terms to a public audience, followed by interactive discussions. Enrolled students will form teams, with 1-2 students giving the presentation and others disseminating information about the presentation by writing blog posts and tweets, as well as producing short summary videos for posting online. Additional class meetings will include seminars by speakers from various cancer-related areas (government agencies, private foundations, pharmaceutical and healthcare industry, etc.) as well as book discussions. Through this course, students will meet and interact with cancer patients and develop skills in communicating science to the public. Community members will learn about cancer biology while engaging in discussions with cancer trainees and thereby helping shape the future of cancer research.



Lindsay France/University Photography
Cornell students and members of the Cornell and Ithaca communities participated in the Sept. 10 meeting.

Summary

In summary, the Community Engagement by Cancer Scientists program is an exciting opportunity for graduate students to gain the following:

- an increased understanding of the range of public communication of science and technology
- an increased understanding of the differences between "outreach" and "engagement" (also known as "talking" vs. "discussing")
- an introduction to the range of skills needed for successful public communication of science and technology
- an introduction to career opportunities in public communication of science and technology
- an increased understanding of the various outlets for scientific writing for the public and strengths and challenges of each type of outlet
- familiarity with how to structure a lay abstract and the appropriate level of technical detail for the writing
- experience in how to evaluate and critique the written work of others
- assessment of current skills in scientific writing, including both strengths and areas for continued improvement
- an understanding of the challenges faced by cancer patients, including physical, emotional, financial, and legal issues
- experience talking with cancer patients
- background information necessary to effectively communicate with cancer patients and survivors
- practical experience speaking about scientific topics to a public audience
- appreciation for the patient perspective and the issues that are most important to cancer patients
- knowledge to effectively disseminate information to the public using both traditional and cutting-edge approaches
- an understanding of the benefits of partnering with consumers

This program is intended for life sciences PhD students conducting cancer research, but all graduate students are welcome to participate and there are no prerequisites.

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