

Committee on Ethics https://acsethics.org/

# The History of the Committee on Ethics 2006-2021



Compiled by Svetlana Korolev

Spring 2023

# The History of the Committee on Ethics 2006-2021

Compiled by Svetlana Korolev

March 23, 2023

# Contents

Preface	2
Reports	3
Membership	22
<ul> <li>Committee chairs</li> <li>Staff liaisons</li> <li>Members</li> <li>Subcommittees</li> <li>Liaisons</li> </ul>	
Programs	25
• Symposia, workshops, and Pacifichem	
Publications	27
<ul> <li>ACS symposium books</li> <li>Committee monographs</li> <li>Case studies</li> <li>Journal articles</li> <li>Chair's comments in <i>C&amp;EN</i></li> <li>Newsletter articles</li> </ul>	
Outreach	29
<ul><li>Collaborations</li><li>Posters and surveys</li></ul>	

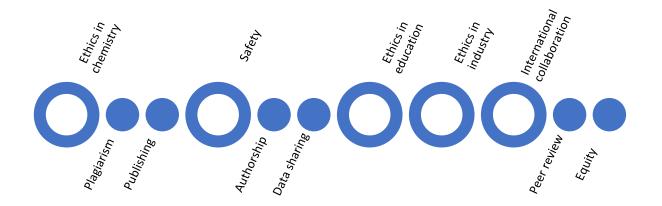
• ChemLuminary Award

# PREFACE

This compendium is the first attempt at gathering together the official reports of the Committee on Ethics published in the *Chemical and Engineering News* (C&EN), and in the Council agendas and minutes. The first section consists of the reports verbatim from the original sources. The next four sections provide highlights of the main facts regarding membership, programs, publications, and outreach. For those sections, additional content was retrieved from past ACS national meeting programs, publication records in Web of Science and Google, and the book chapter "History of Ethics in the American Chemical Society" by Susan Schelble (in the 2021 ACS symposium series, volume 1401). Professor Schelble was a member of the Committee on Ethics in 2006, and in her 2021 book she shares historical recollections of the creation and growth of the committee.

I would like to thank Patricia (Pam) Mabrouk, committee chair 2023, for forming four new subcommittees this year, including a history subcommittee. Making connections to the committee members and knowing its history is especially useful since the Covid-19 pandemic. The remote mode has impacted professional service significantly for all members, in particular, new members and associates. Additionally, the experienced committee members who had developed the latest strategic plan in 2019 have now completed their service terms without options for fulfillment or mentorship for the incoming associates. Some new members may feel disconnected and appreciate learning more about the past committee activities.

Since its formation in 2006, the Committee on Ethics has been active in developing collaborative programming with ACS divisions, committees, and other organizations. The committee members organize successful symposia, teach workshops, publish case studies, articles, monographs, and symposium series. The following timeline depicts the broad themes of the committee technical programs at national meetings.



#### REPORTS

#### Voting on an Ethics Committee by Neil Jespersen (C&EN March 7, 2005)

"On March 16, at the ACS Council meeting in San Diego, the Committee on Committees (ConC) will renew its proposal that an ethics committee be instituted. The proposed charge will be: "To coordinate the ethics-related activities of the society; to serve as an educational resource and clearinghouse, but not as an adjudication body, for ACS members seeking guidance on ethics issues; to raise awareness of ethics issues through meeting programming and columns/editorials; to review recognition opportunities for acknowledging ethical behavior; and to develop and oversee such other ethics-related activities as will serve ACS members and promote the society's standards of ethical conduct within the profession of chemistry and its related disciplines." ConC takes its responsibilities seriously, as evidenced by the fact that it has taken three task forces and four years of in-depth study to consider this issue and to arrive at this proposal. ConC is keenly aware of the need to keep the cost of committees and the number of committees to a minimum, as well as to avoid the addition of unneeded layers to the ACS bureaucracy. It has been many years since ConC has proposed that a new committee be created. ConC is convinced that ethics is an overarching concern of the society and asks for the support of council members to recognize the importance of raising the awareness of ethics among members and promoting ethics initiatives by creating a full committee devoted to ethics in our scientific enterprise.

The three task forces amassed a tremendous amount of material concerning ethics, some of which is available on the ConC website. Fifty-seven societies were surveyed to determine the extent of their ethics efforts. A survey of all ACS committees was conducted. Online ethics-related materials were investigated. The chair of the Professional Standards & Ethics Subcommittee of the Committee on Economic & Professional Affairs (CEPA) and a member of the Younger Chemists Committee presented information to the task forces. There were informational presentations and discussions with the ACS general counsel; the director of the American Association for the Advancement of Science's Scientific Freedom, Responsibility & Law Program; and the executive director of the American Institute of Chemists. The findings of the task force include the following:

• ACS lacks a sustained and pervasive focus on ethics activities. Committee and programmatic activities tend to be diffuse and decentralized. Although ACS units and departments develop some excellent ethics-related documents--including a "Chemists Code of Conduct," academic and employment guidelines, and "Ethical Guidelines to Publication of Chemical Research"--and occasionally sponsor ethics programming, these and other activities are largely undertaken independent of each other, as the society lacks a central coordinating unit singularly devoted to ethics-related activities.

• While key ethics activities are not currently taking place within ACS in any systematic way, the greatest void is in the area of ethics education. ACS lacks a resource center/clearinghouse for ACS members seeking information and guidance on ethics-related issues.

• Given the existence of a means within the ACS bylaws to respond to charges of conduct injurious to the society, and of legal and other risks that could arise from a broadening of this

activity, the task force does not recommend that ACS undertake to develop a function adjudicating ethics conflicts between individuals, organizations, or between individuals and institutions unrelated to ACS.

• The existence of a stand-alone ethics committee would send a message to members and the external public that the American Chemical Society considers ethical conduct within its disciplines to be an important priority that is expected of its members and that is present in society activities.

These findings constitute a persuasive case for recommending the establishment of an ethics committee. However, this committee cannot be responsible for all of the society's ethics activities because ethics would become too compartmentalized, and the society would fail to make use of the expertise of existing committees and society units. Instead, the ethics committee must help ACS create a sustained and pervasive ethics awareness in all parts of the society. The ethics committee must take advantage of the diverse expertise of our members to encourage them to craft ethics initiatives that correspond to their interests. For example, CEPA should retain its Subcommittee on Standards & Ethics because of its institutional expertise and strong member interest. Publications should maintain ethical publication principles, and our education-related committees have ethics programs, there will still be significant development, programmatic, and coordination activities for the ethics committee.

A visible, active ethics committee that serves ACS by maintaining a high level of ethics awareness and that serves the members by providing timely and useful information, resources, and direction is an idea whose time has come."

#### Ethics Committee's First Meeting (C&EN March 6, 2006)

"The newly created ACS committee on Ethics will have its first meeting at the upcoming national meeting in Atlanta. The open meeting of the committee will take place on Sunday, March 26, 4 to 5 PM, in the Hilton Atlanta Hotel. The committee chair is Margaret A. Cavanaugh, deputy director of the National Science Foundation's Directorate for Geosciences."

**Official reports from the ACS national meeting in San Francisco** (C&EN Dec, 18, 2006) "The Committee on Ethics held its second meeting in San Francisco. The goals of the meeting were to complete laying the organizational groundwork for this new committee, initiate liaison relationships, and develop priorities and plans for 2007. In addition, the committee continued to educate itself concerning the ethics issues of most interest to ACS members. The interactions and feedback that the committee receives will inform development of a multiyear strategic plan during 2007. The committee agreed to initiate the following activities. In the area of ethics education, the committee will begin to compile materials related to teaching ethics courses for posting on a committee website. To increase ethics awareness, the committee will develop programs for national and regional meetings and prepare articles for ACS publications. In the area of publications, a subcommittee identified the major ethical issues as plagiarism, conflicts of interest, allocation of credit, copyright, review, lack of awareness, and open access. Liaison relationships are in place, under discussion, or planned with the following committees or divisions: the Committee on Committees, the Committee on Publications, the Committee on Economic & Professional Affairs, the Division of Chemistry & the Law, the Professional Relations Division, and the Industrial & Engineering Chemistry Division. Many topics for national meeting programming were discussed and will be pursued. These include programs related to graduate and undergraduate education, being a responsible chemist, ethical dilemmas in industry, and historical case studies. The committee thanks the San Francisco Section for distributing a survey during the national meeting. More than 100 members completed the survey concerning the ethics issues of most concern to them. The results will be compiled and reported at the next meeting. Margaret A. Cavanaugh, Chair"

#### Official reports from the Chicago meeting (C&EN June 4, 2007)

"The Committee on Ethics met in Chicago and discussed the possibility of organizing and scheduling a committee retreat in the near future to enable the committee to move from the current stage of exploring the needs and interests of ACS members to setting priorities for the next few years.

Committee members have participated in symposia dealing with ethics issues, both within and outside ACS, including the ACS Southeast Regional Meeting earlier this year, and during the Chicago meeting. There are plans in place to cosponsor programs at the upcoming Boston meeting with the Division of Chemistry & the Law, the Office of Graduate Education, and the Younger Chemists Committee. Margaret A. Cavanaugh, Chair"

#### Official reports from the Boston meeting (C&EN November 5, 2007)

"The Committee on Ethics (CE) cosponsored three symposia in Boston on ethics-related topics and has plans for more in the future, including at the New Orleans meeting in spring 2008. The committee also held a strategic planning retreat in July, looking toward planning for the next three years. The committee's primary long-term goal is that ethics and ethical conduct permeate the culture of chemistry and that ACS be recognized as a leader in promoting scientific and professional ethics. To move toward this goal and to carry out the committee's mission in the next few years, CE will focus on "encouraging chemical professionals to access dynamic resources to address ethical issues and to foster ethics training for future generations." To accomplish this purpose, the Committee on Ethics will work to:

Develop and update a website and implement technology to support and enhance our activities.

■ Increase ethics awareness among ACS members by reviewing and disseminating information and developing programs relevant to ethical issues in the chemical sciences.

■ Identify existing ethics materials and develop new content for use in educational programs at meetings and on the Web.

■ Choose a "timely ethical issue" at each CE meeting and develop a white paper or symposium on that issue for a subsequent ACS meeting. Margaret A. Cavanaugh, Chair"

#### Official reports from the New Orleans meeting (C&EN June 23, 2008)

"The Committee on Ethics met in New Orleans on Sunday, April 6, with topics and issues discussed including programming, communications plan/committee website, and cosponsoring a program at the New Orleans meeting. Regarding programming, there continues to be great interest from numerous ACS divisions and committees in cosponsoring programs with the Committee on Ethics. The committee discussed 2009 and 2010 programming, which would not only address "timely ethical issues," but also align with national meeting themes. The committee is also considering a 2009 program concerning falsification of data and a potential program in 2010 on the ethics of environmental sustainability, with emphasis on production of biofuels. The Committee on Ethics also continued its focus on programming for regional ACS meetings, and is making plans for two meetings in 2008. A lengthy discussion was also held regarding a communications plan, which follows from the recently developed committee strategic plan. One major goal has already been met-launching a website on the ACS portal. This site is an important vehicle to list resources and case studies, and a committee member has been designated as the primary contact person in coordinating and vetting all communications-related queries and content. The committee requests that members make them aware of content that would be helpful to members, including students. Finally, the committee cosponsored with Division of Professional Relations a program in New Orleans entitled "ACS: Taking the Lead on Ethics." Approximately 30 members attended the session and joined in lively discussion of a variety of situations with ethical dimensions. Margaret A. Cavanaugh, Chair"

#### Official reports from the Philadelphia meeting (C&EN October 27, 2008)

"The Committee on Ethics met in Philadelphia for the sixth time at an ACS national meeting. The committee is completing its first three years, during which time it has made significant progress in addressing its charge and the strategic goals it set last year.

The committee this year has focused its efforts on developing and disseminating resources to inform ethical decision-making and to foster ethics training. Committee members have written or collected case studies about ambiguous situations. These have been used as the basis for symposia or workshops at regional meetings that have engaged members, particularly students, in discussions that will inform their future actions. By the end of the year, the committee will have offered programs at three regional meetings in 2008, and at least two are planned in 2009. Also this year, the committee started a website and has begun to populate it with links to relevant documents and resources.

During this meeting, the committee refined its communication plan. Next steps will be to direct attention to increasing ethical awareness by engaging with local sections and divisions. The committee will be in touch with them in the next few months regarding ways to partner in programming and resources. Also, an experiment will be conducted using the new ACS member network to obtain broad input on timely ethical issues of interest to members. Plans for future national meetings include a symposium on plagiarism at the spring meeting in Salt Lake City.

The committee is encouraged by signs that it is becoming known both within and outside ACS. Within the last six months, the committee was invited to participate in a university program on publishing, to contribute to an ethics blog, and to consult on scientific information and integrity

issues in the ACS public policy arena. The committee is gratified by these signs, seeing that ACS is beginning to "take the lead on ethics." Please visit us at <u>www.acs.org/ethics</u>. Margaret A. Cavanaugh, Chair"

Official reports from the Salt Lake City meeting (C&EN June 01, 2009) "The ACS Ethics Committee cosponsored (with the Division of Chemical Education) a very successful symposium titled "Plagiarism: What Is it? What Can We Do About It?" The committee is endeavoring to publish the symposium presentations in order to achieve a wider audience for this important subject.

The committee continues to work on improving its Ethics Workshop, which has been presented at various regional meetings the past few years. This past year, the committee presented at the Northeast and Southeast regional meetings. The workshop team gave a brief demonstration to the committee and solicited feedback regarding fine-tuning the case studies that are at the core of the workshop.

Plans are under way to sponsor a symposium at Pacifichem in 2010, titled "Cultural Influences on Professional Ethics." The intent is to examine the perception that the mores and attitudes of students in different countries ultimately impact their personal definitions of professional ethics in their graduate studies and beyond.

Ethical considerations involving safety training and laboratory safety conditions, including the failure to remedy known safety problems in laboratories and the legal liability of supervisory personnel relative to laboratory accidents, were discussed. The Ethics Committee will seek to partner with the Committee on Chemical Safety to address such issues.

The committee reexamined its core mission statement and the target outcomes of its last strategic planning session. Each subcommittee was given specific charges reflecting their individual missions. The subcommittees each presented a working time frame to accomplish these charges. To facilitate committee work between the national meetings, a Collective X group site was set up. The committee has already made good use of this in preparation for Salt Lake City and expects to continue to do so in the future. David J. Chesney, Chair"

#### Official reports from the San Francisco meeting (C&EN May 31, 2010)

"The ACS Ethics Committee cosponsored with the Division of Chemical Health & Safety a symposium titled "Perspectives on Biofuels: Potential & Possible Pitfalls." The committee also presented its "Professional Ethics Workshop" at the Southeast Regional meeting last October in Puerto Rico.

The committee will be sponsoring a symposium at Pacifichem 2010, titled "Cultural Influences on Professional Ethics." This symposium will explore the influence of a student's local or national culture on his or her ability to integrate into the professional culture of the country in which he or she ultimately finds employment.

The Ethics Education Subcommittee continues to develop and refine ethics case studies into a form suitable for use as instructional resources on its Web page <u>www.acs.org/ethics</u>. The Ethics Awareness Subcommittee is engaged in indexing the material already on the Ethics Committee website to highlight those pages that may be of particular interest to individual ACS constituencies, such as students, women, industrial chemists, and senior professionals.

The Ethics Committee met with members of the Committee on Economic & Professional Affairs Subcommittee on Standards & Ethics to explore the potential for collaborative efforts. The Ethics Committee also met with a delegation from the Committee on Chemical Safety. Discussion identified several areas in which the two committees saw an intersection of ethics and safety. The committees decided to work together to develop and disseminate materials relating to safety and ethics. David J. Chesney, Chair"

#### Ethics by David J. Chesney (C&EN July 11, 2011)

"The Ethics Committee met in Anaheim and discussed several topics. One item concerned the language used by Chemical Abstracts Service (CAS) in its licensing agreements with university libraries for SciFinder Scholar. The committee expressed concern to CAS that the switch to digital content delivery that many university libraries have undertaken has precluded access to the scientific literature by nonacademic users in surrounding communities. This issue arose because the SciFinder Scholar contract expressly allows access only by faculty, staff, and students at the subscribing institution. The committee emphasized that its concern was noncommercial use by community members. After discussion, a change was mutually agreed upon in the SciFinder Scholar license to say "noncommercial use," thus allowing for walk-in access to the chemical literature by interested community members.

A working group has been created to explore the feasibility of the committee applying for National Science Foundation funding to develop video case studies specific to chemistry. The working group will report back to the committee in Denver.

The Ethics Committee was involved in organizing two symposia at the Anaheim meeting. The first, sponsored by the Division of Chemical Health & Safety, was titled "What Does a Good Safety Program Look Like?" The second was "The Ethics of Publishing," sponsored by the Division of Chemical Education."

<u>Official reports from the ACS national meeting in Denver</u> (C&EN November 28, 2011) "The ACS Ethics Committee met in Denver on Aug. 24 and had an extended discussion about the Bengü Sezen/Dalibor Sames case and the recent report in C&EN. The committee discussed the lack of options available to ACS in situations like this and ultimately decided to ask MAC and CEPA to consider the development of a process that would allow ACS to investigate and impose sanctions against individuals found guilty of failing to adhere to the professional standards expected of ACS members.

The committee heard that Chemical Abstract Services (CAS) had recently sent a communication to all its client universities offering to alter their contracts with CAS to allow work-in public

access to SciFinder Scholar. This was a direct result of the committee's discussion session with CAS representatives in Anaheim.

The committee decided to make public its resource site on the ACS Member Network. The site will include an "Ask the Ethics Committee" function and the ability for readers to initiate discussions on ethical and professional issues. The Ethics Committee will moderate the site to maintain standards of decorum. David J. Chesney, Chair"

# Official reports from the ACS national meeting in San Diego (C&EN July 23, 2012)

"The Committee on Ethics met at the national meeting in San Diego on March 25 and had an extended discussion about achieving and sustaining its ongoing goals to continually aggregate, facilitate, and encourage the society's ethics programming, education, and awareness. To be effective, the committee needs to hear from you, the society's members, regarding your needs and interests in these areas.

The committee met with the members of the Iraqi chemical society rejuvenation team and representatives from the U.S. Department of State, ACS Office of International Activities, and the Non-Governmental Organization known as CRDF Global. The members of the Iraqi delegation are reestablishing an association of professional chemists subsequent to the extensive changes that have swept their country. The delegates indicated that both scientific and general "human" ethics are critical and central components.

The committee has made public its resource site on the ACS Member Network. The site includes indexed summaries of approximately 130 ethics case studies from the National Academy of Engineering's Online Ethics Center.

The Committee on Ethics website currently includes some 15 ethics-related case studies. These case studies include material relating to chemical health and safety, interpersonal dynamics, collecting and managing data, safety and comportment, cheating, dishonesty, and plagiarism. The committee welcomes suggestions for and contributions of additional case studies. Gregory M. Ferrence, Chair"

# Open Forum Board of Directors (August 19, 2012 minutes)

"Gregory Ferrence, Chair, ACS Committee on Ethics invited his committee members to stand and then stated that they are prepared to listen and take notes on the concerns and suggestions. Attendees offered numerous observations as follows: the need to view ethics as a human behavior issue; seek advice from the ACS Committee on Professional Training as to how they handle or advise on ethical issues that arise within chemistry departments; a proposal to review the general honor system in chemistry departments; a possible symposium on the topic; the need to communicate with the general public and not just scientists; the consequences of submitting incomplete data packages; and how the Society can develop pathways to lower instances of unethical behavior." **Official reports from the ACS national meeting in Philadelphia** (C&EN January 13, 2013) "The Committee on Ethics met at the national meeting in Philadelphia on Aug. 19 and reaffirmed its commitment to continually aggregating, facilitating, and encouraging the society's ethics programming, education, and awareness. To remain effective, the committee needs to hear from you, the society's members, regarding your needs and interests in these areas.

The committee met with ACS's Immediate Past President to discuss timely ethical issues, including authors' rights and responsibilities, particularly in relation to plagiarism and duplicate publication (self-plagiarism).

Ethics heard reports from several ACS units including the Division of Professional Relations, the Committee on Science, and the Joint Board-Council Committee on Publications (JBCCP). This included a presentation about "Copyright Outreach to the ACS Membership" by the chair of the JBCCP Subcommittee on Copyright. Of particular interest, the committee learned about ethics-related resources available at the excellent "Author and Reviewer Resource Center."

In an effort to contextualize ethics-related activities of the ACS relative to other professional organizations, the Committee on Ethics met with the director of the Association for Practical & Professional Ethics. Our guest, an international expert on professional ethics, reminded us that ACS has been a leader in including direct consideration of ethics from our very inception. In particular, professional ethics is specifically addressed in the original 1937 Federal Charter, and since then ACS has continued to promote professional ethics through the 1965 Chemist's Creed and the 1994 Chemist's Code.

Ethics met with ACS strategic planning facilitators to set the stage for a fall 2012 retreat to prioritize strategies and identify champions for the implementation of committee goals for the next several years. Gregory M. Ferrence, Chair"

Official reports from the ACS national meeting in New Orleans (C&EN August 19, 2013) "The Committee on Ethics continues to focus on aggregating, facilitating, and encouraging the society's ethics programming, education, and awareness. To help with our mission, we invite ACS members to contact us vis-à-vis your related interests and needs. Learn more about us online at www.acs.org/ethics.

Over the past year, the committee has reached out to form and strengthen relationships with other organizations that focus on professional ethics and Responsible Conduct of Research (RCR), including The Poynter Center for the Study of Ethics & American Institutions, the Association for Practical & Professional Ethics, and the National Center for Professional & Research Ethics (NCPRE). During the New Orleans national meeting, the committee met with the NCPRE director to expand collaboration. In particular, materials developed by the Committee on Ethics are now available on the "Ethics CORE" website (nationalethicscenter.org), a National Science Foundation-supported collaborative online resource environment (CORE) for ethics and RCR.

Ethics heard reports from several ACS units at our open executive session at the New Orleans national meeting including the Graduate Education Advisory Board, the Committee on Chemists with Disabilities, the Division of Professional Relations (PROF), and Division of Chemistry & the Law (CHAL). We are delighted to see expanding interest in programming, education, and awareness in matters of professional ethics and RCR.

In particular, the Committee on Ethics cosponsored symposia at the New Orleans national meeting, including "Ethics Programs in Corporations & Institutions" with PROF, CHAL, the Committee on Economic & Professional Affairs, and the Division of Small Chemical Businesses; and "Proposing & Administering a Successful REU Program" with PROF, the Division of Chemical Education, and the Committee on Minority Affairs. We invite all ACS technical divisions and committees to contact us regarding opportunities for inclusion of professional ethics and RCR in their future programming. Gregory M. Ferrence, Chair"

# Official reports from the ACS national meeting in Dallas (C&EN August 04, 2014)

"The Committee on Ethics (ETHX) continues to focus on aggregating, facilitating, and encouraging the society's ethics programming, education, and awareness. The committee invites ACS members to contact ETHX with related interests and needs. Please be aware that the society's charge for ETHX forbids adjudication. This is important for the successful function of the committee.

Safety education is a critical component of ethics education, particularly for chemistry and related disciplines. The committee enthusiastically agreed to participate in the Committee on Chemical Safety's newly formed Task Force for Safety Education Guidelines. Its purpose is "to develop guidelines for laboratory safety education for primary, secondary, undergraduate, and graduate education."

Thanks to the Chemical Information Division, the Division of Professional Relations (PROF), the Division of Chemical Education, the Division of Chemistry & the Law, and the Younger Chemists Committee for cosponsoring with us the important and well-attended "Ethical Considerations in Digital Scientific Communication & Publishing" symposium and panel discussion in Dallas. Thanks also to the speakers who made this an exceptional and positive event. All ACS divisions and committee is enthusiastic to promote your programing that has a strong connection to increasing ethics awareness in the community of chemistry and related disciplines.

In an opportunity catalyzed by organization of this symposium, ETHX met with a representative from the Committee on Publication Ethics (COPE) to explore themes of mutual interest, such as publication ethics education. COPE is an independent registered charity in the U.K. that promotes integrity in research publication. COPE provides advice to editors and publishers on all aspects of publication ethics and created and maintain the Code of Conduct and Best Practice Guidelines for Journal Editors.

ETHX met with representatives from the Committee on Planning to discuss the ACS Environmental Scan and explore the possibility of engaging the society in a Survey of Organizational Research Climate (SORC). SORC, which was developed by the National Center for Professional & Research Ethics, is a validated instrument designed to measure the research integrity climate in organizations.

ETHX heard reports from several ACS units at our open executive session at the Dallas national meeting. These included the Committee on Patents & Related Matters, the Committee on Economic & Professional Affairs, and PROF. ETHX maintains formal and informal liaison relationships with several ACS units. ACS divisions and committee chairs are asked to contact the ETHX chair if they see an ongoing or *ad hoc* liaison need with ETHX.

ETHX has been continuing to update and closely align its strategic plan with the current ACS Strategic Plan for 2014 & Beyond. At the open executive session, a series of strategies were approved aimed at realizing ETHX strategic goals. More information may be found on this and other aspect of ETHX at <u>www.acs.org/ethics</u>. Gregory M. Ferrence, Chair"

#### Official reports from the ACS national in San Francisco (C&EN March 23, 2015)

"Focused on our vision for ethics to permeate the culture of chemistry, the Committee on Ethics continues to promote and support high standards of ethical conduct and integrity in the community of chemistry and related disciplines for the benefit of science and society.

Of particular significance is our strengthening relationship with the National Center for Professional & Research Ethics (NCPRE). In addition to participation in the recent NCPREhosted "Connecting Silos Ethics Curriculum Conference," a Committee on Ethics member is currently in residence at NCPRE for a 2014-15 academic year sabbatical.

The focus of the sabbatical at NCPRE ties in to the Education & Materials subcommittee's action plan to develop ethics education materials. Thank you to the Divisional Activities Committee for granting a Technical Division Innovative Project Grant titled "Developing Short Video Ethics Scenarios for Ethics Education in Chemistry" to the Division of Professional Relations to support part of this important collaboration.

At the open executive meeting in San Francisco, the Education & Materials subcommittee looked at topics such as educating students with respect to patents and industry protocols that differ from academia. The subcommittee is working to develop materials to address ethics education at all levels of training.

The Communications & Awareness Subcommittee has committed to producing a twice-yearly newsletter to concisely showcase current Committee on Ethics endeavors. Each single-page newsletter will be emailed to ACS local section, committee, division, and national leaders and will be made available to all ACS members via the ACS ethics website. The subcommittee is actively developing a facilitated workshop on ethics issues to be offered to local sections. The Committee on Ethics is seeking collaboration with local sections and divisions on projects to promote ethics awareness.

The Programming & Screening Subcommittee is seeking to cosponsor or help to embed ethicsrelated content and/or dialog into presentations and symposia. To this end we need the help of organizers and presenters to identify ethics concepts in their papers. For example, if you have a panel discussion, consider including a person who could provide an ethics perspective on the panel. The committee can help identify individuals for this role, and currently offers limited ability to provide interactive ethics presentations or workshops at regional meetings.

Collaborating with the Committee on Ethics is an excellent way to deliver crosscutting outcomes impacting a wide range of ACS local sections, divisions, and committees, and the committee is here to facilitate. Please contact the committee with opportunities.

More information may be found regarding aspects of ETHX at <u>www.acs.org/ethics</u>. Gregory M. Ferrence, Chair"

#### **Committee reports to Board and Council** (spring 2015)

"The ACS Committee on Ethics (ETHX) met Sunday, March 22, 2015 from 9:00 am to 4:30 pm in open session. The committee is grateful for the recommendation from ConC to continue the committee, and also to the Council for supporting this action unanimously. A review of the recommendations to ETHX from ConC led to preliminary discussions about subcommittees and committee size, which the committee plans to address during conference calls to be held prior to the next meeting in Boston.

ETHX also reviewed policy in regards to responding to requests for committee action by parties that perceive potential ethics "violations." Members were again reminded that we are not an adjudication body, and that at no time should any member represent themselves as speaking for the committee or the Society. It was determined that many times these communications could lead to the development of ethics training scenarios.

It was reported to the committee that a grant proposal has been submitted to NSF regarding the quantification of the effect of ethics training, and that ETHX can play a role to help with this research. As this is directly in line with our charge and our strategic plan, the committee endorsed the concept and looks forward to hearing the results.

Two documents from CEPA were reviewed, and recommendations were communicated to the liaison to the committee.

Discussion was held on two petitions for consideration at the Council meeting. No action was taken on either of these petitions. Keith R. Vitense, Chair"

# Committee reports to Board and Council (fall 2015)

"The ACS Committee on Ethics (ETHX) met on Sunday, August 16, 2015, and received a report from the Committee on Chemical Safety Taskforce for Chemical Education. The discussion included mechanisms that could be used by the committee to inform both secondary and undergraduate students of ethical topics in a manner similar to those used by the Committee on Chemical Safety to distribute safety information.

Ethics co-sponsored a workshop at the Great Lakes Regional Meeting, and also provided technical support to gather quantitative data to determine the workshop effectiveness. The presenters provided a review of the workshop and mechanisms used for data collection.

The committee also heard a presentation from staff regarding use of the ACS Network to more efficiently accomplish some committee business. The committee agreed to expand its use of this tool for both internal and external communication.

Discussions were held pertaining to two petitions for action at the Council meeting. No formal position from the committee was proposed regarding either of these action items.

ETHX continues to examine the structure of the committee as recommended by ConC in their most recent review, and we request assistance from anyone involved with programming at national and regional meetings to inform us of any ethics-related programming as part of our charge to coordinate the ethics-related activities of the society. Keith R. Vitense, Chair"

#### Committee reports to Council (agenda book fall 2016)

"The ACS Committee on Ethics (ETHX) has been active in several areas since our last report to Council. Subcommittees have been restructured to better address the goals from the strategic plan for the committee. Because of the size of the committee, each of the two new subcommittees will have primary responsibility for the implementation of the strategies from two goals from our strategic plan.

The **Subcommittee on Resources and Communication** reviewed opportunities for the development of printable ethics material, and for increasing the exposure of the committee and the opportunity to distribute material by partnering with the Committee on Chemical Safety (CCS) and Division of Chemical Health and Safety (DCHS) to share booth space at future meeting expositions. This subcommittee continues the review of a document designed for distribution to undergraduate STEM students.

The **Subcommittee on Awareness and Education** began developing concepts for the development and sponsorship of symposia and workshops at both national and regional meetings. The focus for national meeting symposia will include development of topics that align with the meeting themes from the Multidisciplinary Program Planning Group. To further this goal there will be an ETHX poster at SciMix in Philadelphia as a part of the Division of Chemical Education poster sessions. Also, the Division of Chemical Information (CINF) has agreed to co-sponsor a symposium in San Francisco relating to the ethics of authorship.

At our meeting on March 13th, the committee visited Heather Tierney with ACS Publications, who is moving to a new position in Journals and Ethics Policy. She addresses many of the challenges that are faced by ACS Publications, and also mechanisms for the education of authors to help them avoid some of the more common problems that have been identified. Dorothy

Phillips addressed the ACS Environmental Scan that is being conducted by the Board of Directors, and how the committee can benefit from this work. We also reviewed the Global Chemists' Code of Ethics, and voted to support the petition for consideration at the Council meeting in San Diego to extend free membership benefits to unemployed members from two years to three years.

Subsequent to the meeting the Chair has received inquiries regarding the new policy regarding the rescission of National awards. All such requests have been forwarded to the Board Committee on Grants and Awards. Keith Vitense, Chair"

#### **Committee reports to Board and Council** (fall 2016)

"The ACS Committee on Ethics met August 21st and discussed several ways to take advantage of social media to help disseminate information regarding the activities of the committee, including both the opportunities to advance the work of the committee and the challenges that would arise from such implementation. Specific social media sites that were discussed include Facebook, Twitter, and LinkedIn. The consensus of the committee was that although these platforms all showed promise, more information from both legal and practical perspectives would be needed before we went forward on any of these platforms.

Recommendations from the previous Committee on Committees review were revisited to ensure that any identified concerns from ConC had been addressed. After discussion, the committee identified gaps, but also determined that the majority of the concerns from the previous review had been discussed and action had been taken where appropriate.

A document tentatively titled "Research Ethics Information Profile for Authorship" was reviewed. The document is intended to serve as a general guide to questions of authorship regarding the publication of research, and is envisioned to be the first in a series of documents providing guidance in several areas concerning ethics.

Finally, to support our charge from ConC to "...review recognition opportunities for acknowledging ethical awareness...", the committee voted unanimously to develop an award for presentation at the ChemLuminary ceremony to recognize outstanding ethics-related programming by a local section. It is anticipated that the first award would be presented in 2018 for programming in 2017. Keith R. Vitense, Chair"

#### <u>Committee reports to Council</u> (agenda book fall 2017)

"Since its last report to Council, The Committee on Ethics (ETHX) has undergone a significant change in membership, increasing in size from nine to twelve members, and also from four to five associates. Because of this expansion the committee had a brief orientation regarding the operation of the committee for the new members and associates.

The **Subcommittee on Awareness and Education** updated the full committee concerning several symposia, including those at the current meeting, and plans for upcoming national meetings. The **Subcommittee on Resources and Communications** updated the committee

concerning a publication designed for undergraduates highlighting ethics in the chemical sciences. Subsequent to ETHX spring meeting, the chair was asked about material concerning ethics education in the sciences at the primary/secondary level. The committee plans to meet with representatives from the AACT to discuss the possibility of development of materials appropriate for the primary/secondary level.

A preliminary discussion regarding the criteria for the new ChemLuminary award from the committee (Outstanding Local Section Programming Related to the Promotion of Ethics in Chemistry) was held. It was determined that ETHX would finalize criteria for the award at its fall meeting. Subsequent to the spring meeting information regarding criteria for another ChemLuminary award was distributed to the members and associates of the committee to facilitate the upcoming discussion.

The committee heard presentations regarding the recent Committee on Committees survey addressing committee diversity and also regarding the Governance Design initiative from the Board of Directors. Keith Vitense, Chair'

#### Committee reports to Council (agenda book fall 2018)

"The ACS Committee on Ethics (ETHX) underwent a change in leadership in 2018, and, as a result, took time this year to review workflows and logistics. ETHX will be meeting in person at both national meetings, with virtual meetings of the entire committee scheduled for June and December. Since our last report to Council, we have held one in-person and one virtual meeting, clarifying our subcommittee structure and workload and prioritizing projects. Thanks to skype and teleconferencing technologies, all but one of our members were able to participate at the inperson meeting in New Orleans, and we had good attendance at our virtual meeting, too. At the Fall 2018 National Meeting, ETHX plans to experiment with holding a morning subcommittee work session, during which actual progress can be made on projects, and an afternoon meeting of the entire committee.

ETHX spent time at the New Orleans meeting discussing the most important ethical issues facing chemists today and approved a survey question on this subject, written by the Resources and Communications Subcommittee. This question will be distributed to the ACS membership as part of the salary survey, and we plan to use the results to determine the direction of future projects. In addition to spearheading the survey question project, the subcommittee approved and published a short monograph, The Importance of Ethical Conduct in Scientific Research, early this summer. You can view it at:

<u>https://www.acs.org/content/dam/acsorg/about/governance/committees/ethics/the-importance-of-ethical-conduct-in-scientific-research-final.pdf</u>. The subcommittee will next turn its attention to a redesign of the ETHX Web space.

The **Ethics Awareness and Education Subcommittee** has been quite busy in the area of programming. ETHX cosponsored a symposium with PROF and SCHB on March 20, 2018, entitled "Ethics in Industry Collaborations that Work," and we will co-organize a session in Boston with CINF: "Ethics of Data Sharing" and cosponsor several other data-related symposia in the CINF program. The results of a SciMix poster presented at the Fall 2016 ACS National

Meeting have been published in the Journal of Chemical Education (DOI: 10.1021/acs.jchemed.7b00867). The poster explored ethical issues of interest to Society members and ethics resources that they used. Finally, stay alert for Credit Where Credit is Due: Respecting Authorship and Intellectual Property, a forthcoming ACS Symposium Series volume edited by two of our members and based on a joint ETHX/CINF symposium held at the Spring 2017 ACS National Meeting. The committee encourages the technical divisions sponsoring symposia on any aspect of ethics to let us know, as the committee would be happy to cosponsor or publicize such programs.

Although ETHX offered a ChemLuminary Award for Outstanding Local Section Programming Related to the Promotion of Ethics in Chemistry, the committee voted not to give the award in 2018. The Ethics Awareness and Education Subcommittee is working to revise the self-nomination form for 2019 and actively publicize the award. All Local Sections are encouraged to self-nominate for this award; it is not too late to schedule some ethics-related programming in your sections! Judith N. Currano, Chair"

#### Committee reports to Board and Council (fall 2018)

"The ACS Committee on Ethics met in open session on Sunday, August 19, 2018. Modern technology is a wonderful thing; teleconferencing once again enabled remote members to participate in all aspects of our meeting.

We are proud to announce the publication of our first Symposium Series volume, published online this June, and sponsored by the Division of Chemical Information. Credit Where Credit Is Due: Respecting Authorship and Intellectual Property (https://pubs.acs.org/isbn/9780841233393) presents information and case studies on various topics surrounding authorship and inventorship, and it is a riveting read!

On Monday, we co-organized a symposium on the "Ethics of Data Sharing" with the Division of Chemical Information. We are also planning a session entitled, "Publish, Patent, or Perish: Ethical Communication in Chemistry" for the Orlando meeting, so, start thinking about your abstracts now!

Our subcommittees were hard at work on Sunday morning and made concrete progress on all projects. We are currently reorganizing and reviewing the resources in our Web space to make them more relevant and accessible, and two questions on forthcoming Salary Surveys will give us information about the ethics interests of ACS members. We have also revised the criteria for our ChemLuminary Award for "Outstanding Local Section Programming Related to the Promotion of Ethics in Chemistry," and we ask Local Sections to be specific in their self-nominations about the ethics component and the impact of the activities that they describe.

The Committee on Ethics' charge precludes us from adjudicating ethics cases raised by ACS members. This year, we received many communications from members, citing a variety of ethical concerns, and, in some cases, requesting resolution to upsetting and troublesome situations. While we are happy to provide members with resources and make referrals, we are not permitted to render judgments. If this need by our members cannot be filled through referrals

to other entities, the Society might want to consider forming an adjudicatory body in the future. Judith N. Currano, Chair"

#### <u>Committee reports to Council</u> (agenda book fall 2019)

"The Committee on Ethics (ETHX) has been hard at work since it last addressed Council. You may recall that the committee's 2016 SciMix interactive poster succeeded in collecting feedback about ethics issues of interest to ACS members attending that particular meeting; however, ETHX wanted to collect similar information from a broader swathe of the ACS membership. The Ethics Resources and Communications subcommittee constructed two questions that appeared as part of a recent distribution of the ACS Salary Survey. We have received over 2500 responses from the first round of surveys, and we plan to repeat the exercise on a regular basis so that we can learn about changes in member interests over time and respond by providing appropriate resources and programming.

For the first half of the year, the committee experimented with small working groups established to tackle a few short-term projects. These included drafting a committee handbook; performing background research in preparation to launch a revitalized ETHX Web site; continuing ETHX programming efforts in a variety of venues; collecting, curating, and constructing relevant case studies about ethical issues; and analyzing the data obtained from the Salary Survey. We were able to make concrete progress on most of these projects, with the committee handbook and the Web site recommendations being close to completion at the time of this writing and the other three endeavors forming the basis for ongoing work.

In the area of programming, Patricia Mabrouk and Kelly Elkins, along with colleagues Rosemarie Walker and Susan Schelbe, organized a SACNAS symposium on October 13, 2018, entitled, "What Do I Do? Voicing Your Values as a Scientist." A representative from ETHX was invited to participate in a meeting of the Council of Scientific Society Presidents on May 6, 2019, and we were represented by Karlo Lopez, who, in collaboration with an ethics officer from the EPA, delivered a talk entitled, "New funding opportunity: what does it really mean?" Finally, Patrick Knerr and Ron D'Amelia are hard at work on a second committee monograph, Introduction to the Ethics of Scientific Conflict of Interest.

In early 2019, ACS approved ETHX's request to hold a strategic planning retreat, and most of the committee members attended the retreat, held June 1-2, 2019, at ACS Headquarters in Washington, DC. Attendees worked enthusiastically throughout, and, at the end of a day-and-a-half of activities, the group proposed the following new vision and mission statements:

VISION: Leading a culture of ethics in chemistry

MISSION: To provide and promote resources and activities that educate, guide, and recognize chemists in ethical decision-making

The group also devised three new strategic goals in support of this mission and vision, and nine short-to-medium-term activities that, when implemented by the committee, will help to put these goals into action. The committee is in the process of voting to adopt the strategic plan, and

individual committee members are preparing project plans for the nine goal-oriented projects. The next steps will be to prioritize the projects and begin work. Judith N. Currano, Chair"

# **<u>Committee reports to Council</u>** (agenda book fall 2020)

"The ACS Committee on Ethics (ETHX) meets four times annually, with two long, in-person meetings held during the ACS national meetings and two short teleconferences between meetings. Due to the COVID-19 situation, we converted all of our meetings to virtual meetings. The spring committee meeting was held on March 22, 2020, via Zoom, with a shorter teleconference on January 30, 2020, to welcome our new associates and discuss projects for the year and a brief Zoom check-in meeting on June 15, 2020. A quorum of members were able to meet each time, and we were thus able to transact business at all three meetings. ETHX has formally adopted Basecamp as a project management system, and we are currently learning its capabilities and features as we do our work.

During 2020, ETHX had selected five projects from our strategic planning goals on which to begin work and had constructed working groups around each goal. These goals were to:

- Analyze salary survey responses to identify critical areas of need and interest
- Develop a list of programming ideas that local sections can use to train their members in ethical issues
- Develop a stronger marketing plan for the ChemLuminary Award for Outstanding Local Section Programming Related to the Promotion of Ethics in Chemistry
- Develop a Web presence that disseminates and promotes ethics-related activities and materials
- Construct interactive activities for local sections and young students

At the January teleconference and the March meeting, we heard updates from the working group leaders. Analysis of the data from the last salary survey is now complete, and that working group looks forward to soliciting new data in a future survey. The list of programming ideas is likewise complete and will be posted on the new ETHX Web site when possible. Our marketing plan for the ChemLuminary Award involved collaboration with LSAC and resulted in an increased number of self-nominations, which were discussed at length at the March meeting, and we look forward to awarding our second ChemLuminary Award in August.

We have devoted the majority of our energy this year to our Web presence, our programming, and our work on interactive activities for local sections and young students. During our March committee meeting, we unveiled a framework for our new Web site, https://acsethics.org, where we will post resources, case studies, and events related to ethics in chemistry. Among the items that we hope to disseminate are a series of interactive videos currently being produced by members of the working group in interactive activities, our list of programming activity suggestions, a list of recipients of the ChemLuminary Award for Outstanding Local Section Programming Related to the Promotion of Ethics in Chemistry, and a curated list of ethics-related reading material and case studies produced outside of the committee. We are currently collaborating with the Committee on Community Activities to produce some ethics-related content for children in grades 4-6.

ETHX will cosponsor two symposia in the PROF program at the virtual ACS national meeting in August, "Ethics and Research in Chemical Education" and "Commonly Accepted Scientific Ethics," as well as the CINF poster session. We will also cosponsor "Ethics in the Chemical Profession: Cultural Impacts" at the International Chemical Congress of Pacific Basin Societies 2020 (Pacifichem). Judith N. Currano, Chair"

#### Committee reports to Council (agenda book fall 2021)

"The ACS Committee on Ethics (ETHX) meets four times annually, with two longer formal meetings held during the ACS national meeting week and two shorter meetings held between the national meetings. Our committee meetings have been conducted as teleconferences since the start of the COVID-19 pandemic.

The 2021 year began with a shorter meeting on January 23 to welcome new associate members and to review the committee's mission, vision and strategic goals. A significant portion of the meeting time was devoted to re-valuating the relevance and continuing efforts on achieving the three primary strategic goals that were set during an ACS retreat in 2019. The committee reaffirmed these goals:

Goal 1: By 2023, we will develop and disseminate five educational products for use by local sections.

Goal 2: Develop collaborative programming on ethics with other groups inside and outside of the ACS.

Goal 3: Increase the members' recognition of the value of ethics in their careers and its impact on society.

ETHX co-sponsored two symposia in the PROF programming at the Fall 2020 ACS meeting. The topics covered at the symposia included "Ethics and Research in Chemistry Education" and "Commonly Accepted Scientific Ethics- Key to International Collaboration in Industry and Academics." ETHX co-sponsored "Ethics in the Chemical Profession: Cultural Impacts" at the International Chemical Congress of Pacific Basin Societies (Pacifichem).

The committee has made significant progress on our strategic goals but the members agreed that it was also time for the committee to pivot from collating and building internal resources to becoming more outward facing and to broadcast our resources to the wider ACS membership. As a first step towards this goal, the committee redoubled their commitment to the committee's new website located at www.acsethics.org which serves as a clearinghouse for curated reference materials, websites, white papers, case studies, and interactive videos on ethics-related topics to educate and spur discussions at the local section and classroom settings.

A longer committee meeting was held on March 7, 2021, to coincide with the ACS Spring Meeting. The committee listened to a presentation on the newly revised "ACS Strategic Plan" which included a new goal focused on "increasing inclusion" within the society and in chemistry as a discipline. The group had a robust discussion on the various challenges around inclusivity and equity. Ethics affirmed the principles espoused in the revised ACS Strategic Plan.

The committee reviewed the progress made towards the three goals in the ETHX strategic plan. Sub-teams reported on the recent collaboration with CCA in reaching out to K-12 students. One sub-team partnered with the NCW2021 team to introduce ethical principles involved in recycling and re-use by co-authoring an editorial titled "Reducing Our Footprint with Chemistry" that was published in the "Celebrating Chemistry" magazine. Another sub-team is drafting an article to be submitted to the 2021 "National Chemistry Week" magazine focusing on the ethical reflections on the invention of dynamite.

Members of ETHX recently held a joint symposium with PROF entitled "The Elephants in the Room: Ethics, Equity, and the Early Career Author" at the Spring ACS meeting and this same team is planning for another joint symposium at the August 2021 ACS meeting. Another sub-team that had been working on creating student videos on various ethical topics in schools and colleges reported that the progress made in the tail end of 2020 has been hampered by quarantine rules resulting from COVID-19 pandemic.

The sub-team working on promoting the ChemLuminary Award for outstanding local section programming related to the promotion of ethics in chemistry reported disappointing news that there were no nominations submitted for the first half of 2021. It was thought that local section activities have been seriously hampered by the pandemic and this may have played a significant role in the lack of nominations. In an effort to publicize and encourage local sections to consider ethics themed activities, a sub-team drafted an article that was submitted to the mid-year issue of "Councilor News and Committee Alerts".

Picking up from our January meeting agenda, there was considerable discussion around how ETHX could better broadcast the committee's resources and activities. Several ideas were generated for future consideration including some thoughts involving writing articles to a variety of publications to increase the reach of this committee. The Chair of ETHX followed on this suggestion by submitting a Commentary titled "What's ethics got to do with it?" that was published in the March 16 issue of C&E News. The published article prompted several readers to provide feedback supporting the committee's goals and/or sharing stories of ethical lapses.

The ETHX committee will continue to work on how to disseminate ethical thinking in the chemical sciences and the society at large. The committee meets again on July 31 during the Fall 2021 ACS Meeting. William W. Leong, Chair"

# **MEMBERSHIP**

# **Committee chairs**

Margaret Cavanaugh	2006-08
David Chesney	2009-11
Gregory Ferrence	2012-14
Keith Vitense	2015-17
Judith Currano	2018-20
William Leong	2021-22
Patricia Mabrouk	2023-

#### ACS staff liaisons

Eric Slater	2006-21
Keri Travis	2022-

#### Members

The following three membership rosters are representative samples for 2006, 2010, and 2016. All Council agendas posted on the web include memberships as part of the committee reports. A part of the letter of invitation to join the newly formed Committee on Ethics from the 2005 ACS President William Carroll addressed to the members and consultants was shared in the book chapter by Susan Schelble (page 242). The following names were printed on the letter:

Margaret A. Cavanaugh	Carlos Gutierrez	Susan M. Schelble
David J. Chesney	Ned D. Heindel	James Visintainer
Catherine E. Costello	Thomas R. LeBon	Paul H. L. Walter
Alanah Fitch	Rich Lomneth	

In 2010 the committee consisted of nine members and five associates:

David J. Chesney	Carlos G. Gutierrez	Ben B. Chastain
George Bodner	Thomas R. LeBon	Gregory M. Ferrence
Catherine E. Costello	Susan M. Schelble	Victor Hruby
Alanah Fitch	James Visintainer	Keith Vitense
Paul S. Furth		James J. Zwolenick

Keith Vitense	Leah McEwen	Helen Gerhard
Ben Chastain	Edward Mottel	George Heard
Laurence Doemeny	James Tatera	Patrick Knerr
Victor Hruby	Lester Bynum	Patricia Mabrouk
William Leong	Judith Currano	Steven Tait
Karlo Lopez	Kelly Elkins	Susan Schelble

In 2016 the committee consisted of nine members, eight associates, and one consultant:

In 2017 the Committee on Ethics was increased in membership from nine to twelve members; and kept fluctuating from five to nine associates.

#### Subcommittees

The Committee on Ethics participated in three strategic planning retreats in 2007, 2012, and 2019. From the start, the committee focused its activities on three main areas: programming, education, and awareness. In 2016 after its review and recommendations by the Committee on Committees, ETHX modified the names of the three subcommittees as follows:

- 1. Communication & Awareness
- 2. Education & Materials
- 3. Programming & Screening

In 2019 coming from the strategic planning retreat, numerous teams were formed to work on each strategy within the three main goals for developing educational products for local sections, collaborative programs inside and outside the society, and increasing the members' recognition.

The acronym for the Committee on Ethics has changed overtime from CE (in 2006), to ETHC (in ~2012), and to the present ETHX (in ~2014).

#### Liaisons

Various liaison relationships with ACS committees, divisions, and other organizations have been listed as planned or established in the historical reports. From early on, the committee has had a natural connection to the Division of Professional Relations with its own Ethics subdivision. Several members served on both ETHX and PROF for coordinating their activities. Also, there has been a continuation in member representations from the Division of Chemical Information on the committee who organized a number of notable symposia and published the book in 2018.

Here are the names of the collaborating units over time:

- Committee on Chemical Safety (CCS)
- Committee on Chemists with Disabilities (CWD)
- Committee on Committees (ConC)
- Committee on Community Activities (CCA)
- Committee on Economic & Professional Affairs (CEPA)
- Committee on Education (SOCED)
- Committee on Patents and Related Matters (CP&RM)
- Committee on Professional Training (CPT)
- Joint Board-Council Committee on Publications (now Committee on Publications)
- Younger Chemists Committee (YCC)
- Division of Chemical Health & Safety (CHAS)
- Division of Chemical Information (CINF)
- Division of Chemistry and the Law (CHAL)
- Division of Small Chemical Businesses (SCHB)
- Division on Industrial and Engineering Chemistry (I&EC)
- Division on Professional Relations (PROF)
- ACS Publications
- Office of Graduate Education
- American Association of Chemistry Teachers (AACT)

In 2012 the Committee on Ethics met with the members of the Iraqi Chemical Society rejuvenation team and representatives from the U.S. Department of State, ACS Office of International Activities, and the Non-Governmental Organization known as CRDF Global.

In 2013 the Committee on Ethics reached out to strengthen relationships with other organizations that focus on professional ethics and Responsible Conduct of Research (RCR), and met with the leaders of the Association for Practical and Professional Ethics (APPE, <u>https://www.appe-ethics.org/</u>), the Poynter Center for the Study of Ethics & American Institutions (Indiana University, <u>https://poynter.indiana.edu/</u>), and the National Center for Professional and Research Ethics (NCPRE, <u>https://ncpre.csl.illinois.edu/</u>).

In 2014 Committee on Ethics met with a representative from the Committee on Publication Ethics (COPE, <u>https://publicationethics.org/</u>); and with representatives from the Committee on Planning to discuss the possibility of engaging ACS in a Survey of Organizational Research Climate developed by NCPRE. Additionally, ETHX participated in the "Connecting Silos Ethics Curriculum Conference" hosted by NCPRE and developed materials for the "Ethics CORE" (Collaborative Online Resource Environment, <u>https://ncpre.csl.illinois.edu/ethics/ethics-core</u>).

# PROGRAMS

#### Symposia, workshops, and Pacifichem

The Committee on Ethics organized the first symposium "**Chemistry and the Law 2006 Update: What Chemists Need to Know**" through the Division of Chemistry and the Law (CHAL) for the Southeastern regional meeting (SERMACS) in November, 2006. "This consisted of a half-day of talks about the new committee, and had the first use of interaction through using a personal response system (clickers) to engage attendees. Based on the success of these devices from Cameron University, a committee member applied for an ACS Innovative Project Grant, which was awarded to purchase clickers for a workshop." Next, the committee organized the workshop at the Northeastern regional meeting (NERM) in 2008 and four workshops at regional meetings in 2009. (Schelble, pages 242-243)

In 2007 the committee co-sponsored a symposium "**Ethics in Chemistry**" at the spring national meeting; co-sponsored three symposia at the fall national meeting; and two symposia at the Rocky Mountain and Southeastern regional meetings.

In 2008 the committee co-sponsored a program entitled "ACS: Taking the Lead on Ethics" with the Division of Professional Relations at the spring national meeting; and was invited to participate in a university program on publishing.

In 2009 the committee co-sponsored a very successful symposium titled "**Plagiarism: What Is It? What Can We Do About It?**" with the Division of Chemical Education; and also presented its "**Professional Ethics Workshop**" at the Southern regional meeting in Puerto Rico.

In 2010 the committee co-sponsored a symposium titled "**Perspectives on Biofuels: Potential & Possible Pitfalls**" with the Division of Chemical Health & Safety at the spring national meeting. The committee started programming at the International Chemical Congress of Pacific Basin Societies (**Pacifichem**) by organizing two half-day symposia, one titled "**Cultural Influences on Professional Ethics.**"

in 2011 the committee was involved in organizing two symposia at the spring national meeting: with the Division of Chemical Health and Safety titled "What Does a Good Safety Program Look Like?" and with the Division of Chemical Education titled "The Ethics of Publishing."

In 2012 the committee began programming at a SciMix poster session during ACS national meetings (Schelble, p. 244). On a related note: "Ethics in Industry: NOT an Oxymoron!" was organized by PROF & SCHB. The ACS Board of Directors held its Open Session for all attendees with a discussion of the question: "What are the 'Real World' ethics issues faced by students and practitioners of chemistry?" at the fall national meeting.

In 2013 the committee co-sponsored two symposia titled "**Ethics Programs in Corporations & Institutions**" with PROF, CHAL, CEPA, and SCHB; and "**Proposing & Administering a Successful REU Program**" with PROF at the spring national meeting.

In 2014 ETHX and CINF teamed up with CHAL, CHED, PROF, YCC, and the ACS Publications to organize a symposium "**Ethical Considerations in Digital Scientific Communication and Publishing**" at the spring national meeting. (Leah McEwen published a report about this symposium in *Chemical Information Bulletin*).

In 2015 ETHX co-sponsored a symposium "**Professional Legacy of Henry Hill**" with PROF, CEPA, CMA, HIST, ORGN, PMSE, POLY, PRES, and SCHB at the fall national meeting; a **workshop** at the Great Lakes regional meeting. For the 2015 **Pacifichem** the committee members gave presentations in the area that connects *Chemistry and Society* (Schelble, p. 245).

In 2016 the committee co-sponsored a symposium titled "Ethics 101" with PROF, CHED, and CINF at the spring national meting; and two symposia: "Safety & Ethics in our Chemical Community" with CHAS and "Who Should Regulate Pesticides in Our Food?" with AGRO, at the fall national meeting.

In 2017 the committee co-sponsored a symposium "**The Write Thing to Do: Ethical Considerations in Authorship & the Assignment of Credit**" with CINF at the spring national meeting; and a symposium "**Building a Safety Culture across the Chemistry Enterprise**" hosted by the Presidential Events (PRES) at the fall national meeting.

In 2018 the committee co-sponsored a symposium "Ethics in Industry: Collaborations that Work" with PROF and SCHB at the spring national meeting; a symposium "Ethics of Data Sharing" with CINF at the fall national meeting; and organized a symposium "What Do I Do? Voicing Your Values as a Scientist" in October at SACNAS.

In 2019 other divisions held symposia with talks related to ethics in spring; CHAS and CINF organized a symposium "Connecting Professionalism, Safety & Ethics: Challenges and Opportunities" at the fall national meeting.

In 2020 the committee co-sponsored two symposia entitled "**Ethics and Research in Chemistry Education**" and "**International Collaboration: Ethics and Opportunities**" with PROF; and participated at the **poster session** hosted by CINF at the fall (virtual) national meeting.

In 2021 the committee organized a joint symposium "**Elephants in the Room: Ethics, Equity, and the Early Career Author**" with CINF at the spring national meeting; and two symposia: "**Imagining a Concept Map for Professional Ethics in Chemistry: Make your Case for the Main Hubs**" with PROF and "**Watching the Watchperson: Ethics & Peer Review**" with CINF, at the fall national meeting. (Judith Currano published two reports about the CINF symposia in *Chemical Information Bulletin*).

For the 2021 **Pacifichem** presentations were given at the symposia "Empowering Women in the Chemical Sciences and Engineering" and "Ethics in the Chemical Profession: Cultural Impacts." Overall, the committee participated in three Pacifichem Congresses in 2010, 2015, and 2021. Proceedings from the 2021 Pacifichem and two ethics symposia from the fall 2020 ACS national meeting were edited and published by Susan Schelble and Kelly Elkins in the ACS Symposium book "International Ethics in Chemistry: Developing Common Values across Cultures."

# **PUBLICATIONS**

# ACS symposium books

- Credit Where Credit Is Due: Respecting Authorship and Intellectual Property. 2018. Mabrouk P., & Currano J., eds. <u>DOI: 10.1021/bk-2018-1291</u>
- International Ethics in Chemistry: Developing Commons Values across Cultures. 2021. Schelble S., & Elkins, K., eds. DOI: 10.1021/bk-2021-1401

#### **Committee monographs**

- 1. The Importance of Ethical Conduct in Scientific Research. Laurence Doemeny and Patrick Knerr. 2017. Link
- 2. Introduction to the Ethics of Scientific Conflict of Interest. Patrick Knerr and Ronald P. D'Amelia. 2020. Link

#### **Case studies**

#### Case studies for Ethics Education in Chemistry. (13 case studies). 2010. Link

"These case studies include materials relating to chemical health and safety, interpersonal dynamics, collecting and managing data, safety and comportment, cheating, dishonesty, and plagiarism." (2012 report). The case studies were at the core of the ethics workshop conducted at regional meetings. Six workshops were taught: one in 2007, four in 2008, and one in 2015.

# Journal articles

- 1. Mabrouk, P., & Schelble, S. Interactive Poster Survey Study of ACS Members' Knowledge and Needs on Research Ethics. *J. Chem. Educ.* 2018, 95, 6, 954–961. https://doi.org/10.1021/acs.jchemed.7b00867
- 2. Elkins, K., & Ibiwunmi Fambegbe, I. Case Studies and Methods for Teaching Professional Ethics for Forensic Science Students. *Journal of Forensic Science Education*, 2020, 2 (1). <u>https://jfse-ojs-tamu.tdl.org/jfse/index.php/jfse/article/view/17</u>

Many journal articles were published by committee members as part of their scholarship (that is beyond the scope of this compilation; some were cited in the two symposium volumes). Additionally, special journal issues were published by ACS members, such as "Ethics and Responsible Conduct of Research within the Chemical Community. Ideas and Experiences Worth Sharing" including five articles on open access supported by the Division on Professional Relations and the Innovative Project Fund. *Accountability in Research*, 2015, 22, 6. https://www.tandfonline.com/toc/gacr20/22/6

and two special issues "**Ethics in Chemistry**" in *HYLE - International Journal for Philosophy of Chemistry*, 7 (2) 2001 & 8 (1) 2002. <u>http://www.hyle.org/</u>

# Chair's comments in C&EN

- 1. <u>Working together to promote ethics</u>. Keith Vitense. November 7, 2016
- 2. Catalyzing increased awareness about ethics. Keith Vitense. November 13, 2017
- 3. Raising awareness among ACS members about ethics. Judith N. Currano. September 29, 2018
- 4. <u>Committee on Ethics encourages member input</u>. Judith N. Currano. February 02, 2019
- 5. Considering ethics during a time of crisis. Judith N. Currano. April 25, 2020
- 6. <u>What's ethics got to do with it?</u> William Leong. May 16, 2021

# Newsletter articles

- Research ethics 101: interview with Margaret Cavanaugh, chair of the American Chemical Society's Committee on Ethics. *Chem Matters*. 2009. Link
- ACS Committee on Ethics: an overview. Gregory Ferrence. *Chemical Information Bulletin.* Summer 2014, 66 (2), 25-26. Link
- Ethical considerations in digital scientific communication and publishing. (A report of the symposium). Leah McEwen. *Chemical Information Bulletin*. Summer 2014, 66 (2), 15-17. Link
- ACS Committee on Ethics. Judith Currano. *Chemical Information Bulletin*. Summer 2016, 68 (2), 35. Link
- Reducing our footprint with chemistry. Neil Abrams and the ACS Committee on Ethics. *Celebrating Chemistry*. 2021. (For the Chemists Celebrate Earth Week). <u>Link</u>
- Dynamite and the ethics of its many uses. Fran Kravitz and the ACS Committee on Ethics. *Celebrating Chemistry*. 2021. (For the National Chemistry Week). Link
- Elephants in the room: ethics, equity, and the early career author. (A report of the symposium). Judith Currano. *Chemical Information Bulletin*. Summer 2021, 73(2), 4-7. https://www.acscinf.org/bulletin
- Watching the watchperson: ethics & peer review. (A report of the symposium). Judith Currano. *Chemical Information Bulletin.* Winter 2021, 73(4), 6-10. <u>https://www.acscinf.org/bulletin</u>

# OUTREACH

# Collaborations

In 2013 the committee strengthen relationships with other organizations that focus on **Responsible Conduct of Research** and contributed materials to the "**Ethics CORE**" website.

In 2014-15 ETHX participated in the Committee on Chemical Safety's **Task Force for Safety Education Guidelines** for high school and college students, and then planned to distribute printable materials via a joint booth space at future expositions.

In 2015, in collaboration with the Division of Professional Relations, ETHX received an **Innovative Project Grant** for "Developing Short Video Ethics Scenarios for Ethics Education in Chemistry" funded by the Committee on Divisional Activities.

"Members of PROF and ETHX participated in judging for **APPE International Bowl Competitions** in 2018 and 2019" (Schelble, p. 249).

In 2021, in partnership with the Committee on Community Activities, ETHX co-authored two articles to introduce ethical principles involved in recycling and re-use, and on ethical reflections on the invention of dynamite in *Celebrating Chemistry* for K-12 students.

# Posters and surveys

During the fall 2006 national meeting, on behalf of the Committee on Ethics, the San Francisco Section distributed a survey concerning the ethics issues. More than 100 members completed.

"At the SciMix Poster event in 2016, members of ETHX and PROF conducted a survey of many ACS members (students, academics, industry and government) to ascertain the level to determine what various members of ACS knew about these resources. It was unsurprising to learn that very little was known by students and professional alike" (Schelble, p. 249).

In 2019, to learn about changes in member interests over time and respond by providing appropriate resources and programming, the Committee on Ethics constructed two questions that appeared as part of the ACS Salary Survey and received over 2500 responses.

# **ChemLuminary Award**

The committee presented the first ChemLuminary Award, which recognized outstanding programming by a local section related to the promotion of ethics in chemistry, to the Silicon Valley Local Section in 2019, and next gave two awards to the Chemical Society of Washington and the Midland Local Section in 2020.

In 2020, the committee developed a list of the **Programming Ideas** that local sections can use to train their members in ethical issues as well as to consider activities for the ChemLuminary Award self-nominations. (Posted at: <u>https://acsethics.org/awards/</u>).