



ACS

Chemistry for Life<sup>®</sup>

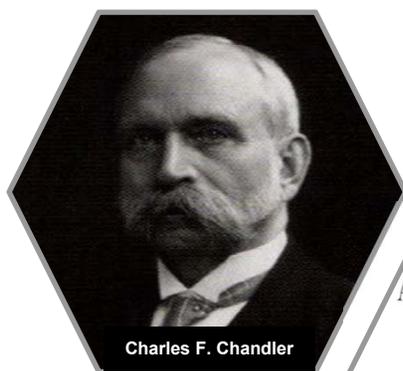
American Chemical Society

American Chemical Society



# About ACS

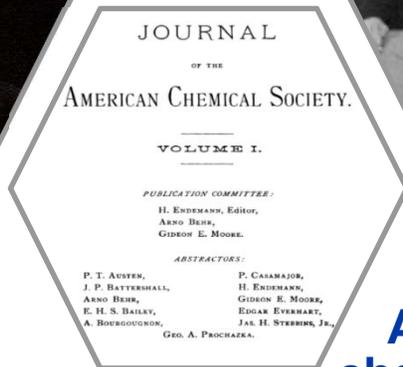
# ACS Born in the 19<sup>th</sup> Century



Charles F. Chandler

**Founded  
in 1876**

**Flagship journal  
launched in  
1879**

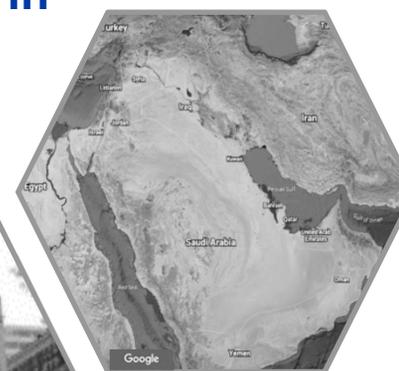


*J. Am. Chem. Soc.*  
**1879** 1(1)  
DOI:10.1021/ja02143a700



**ACS national  
charter signed by  
Roosevelt in 1937**

**Headquarters  
established in  
1941**



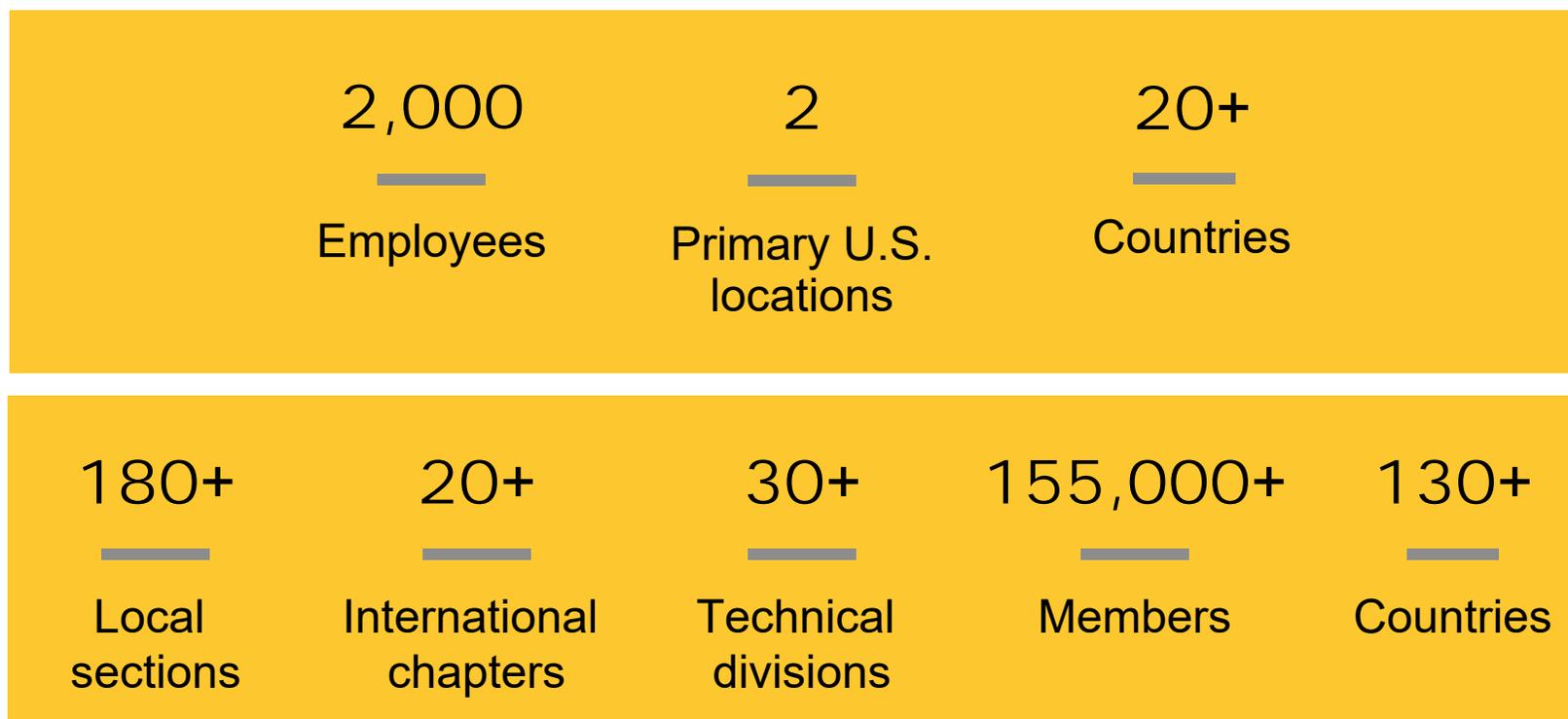
**First international  
chapter established  
in 1993**

## In 1876

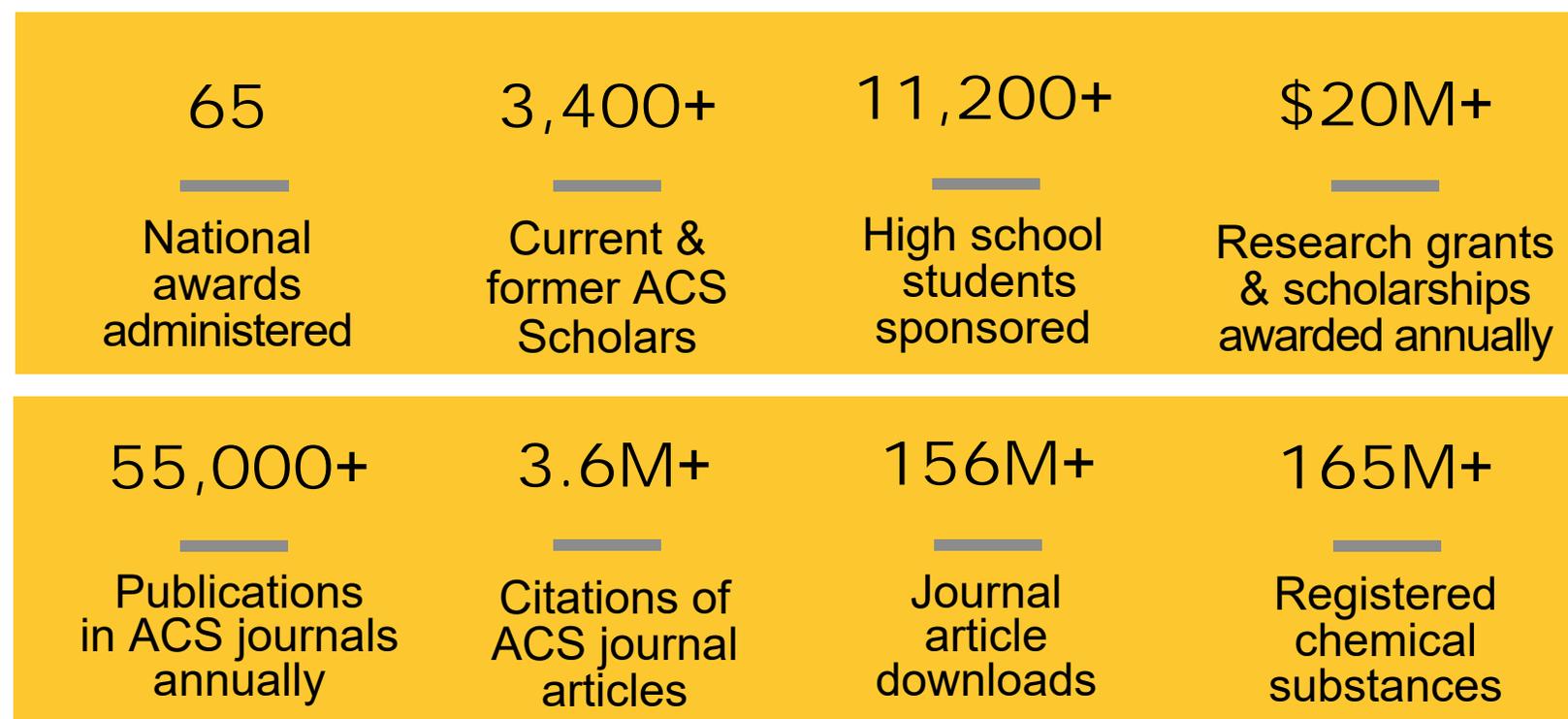
- Cars didn't exist yet in America.
- Alexander Graham Bell was inventing the telephone.
- Dmitri Mendeleev formulated the periodic table of elements just seven years prior.
- It was the centennial of the Declaration of Independence.



## About ACS – Our Presence Today



## About ACS – Our Impact



# ACS Vision, Mission and Core Values



## Vision

Improving peoples lives through the transforming power of chemistry

## Mission

Advancing the broader chemistry enterprise and its practitioners for the benefit of Earth and its people

## Core Values

-  Passion for chemistry and the global chemistry enterprise
-  Focus on members
-  Professionalism, safety and ethics
-  Diversity, equity, inclusion and respect

# ACS Goals



01  
Goal 1

**Provide information solutions**

02  
Goal 2

**Empower members and member communities**

03  
Goal 3

**Support excellence in education**

04  
Goal 4

**Communicate chemistry's value**

05  
Goal 5

**Embrace and advance inclusion in chemistry**

# Goal 1

## Provide information solutions



# Goal 1 Provide information solutions

## National meetings & expositions



2x  
—  
Per year

14,000+  
—  
Attendees per event

12,800+  
—  
Presentations per event

200+  
—  
Exhibitors & free workshops per event



# Goal 1 Provide information solutions

Most trusted. Most cited. Most read



**ACS Publications' goal is to deliver indispensable solutions to researchers who are addressing global challenges.**

## **Journals, Books and Resources**

- Portfolio of 65+ peer-reviewed journals, including the *Journal of the American Chemical Society*
- ACS Legacy Archives: Digital archive of all journal articles from 1879-1995
- ACS Symposium Series
- *ACS Guide to Scholarly Communication*
- *ACS Reagent Chemicals*

## Goal 1 Provide information solutions

**Most trusted. Most cited. Most read.**



### ACS Publications by the numbers...

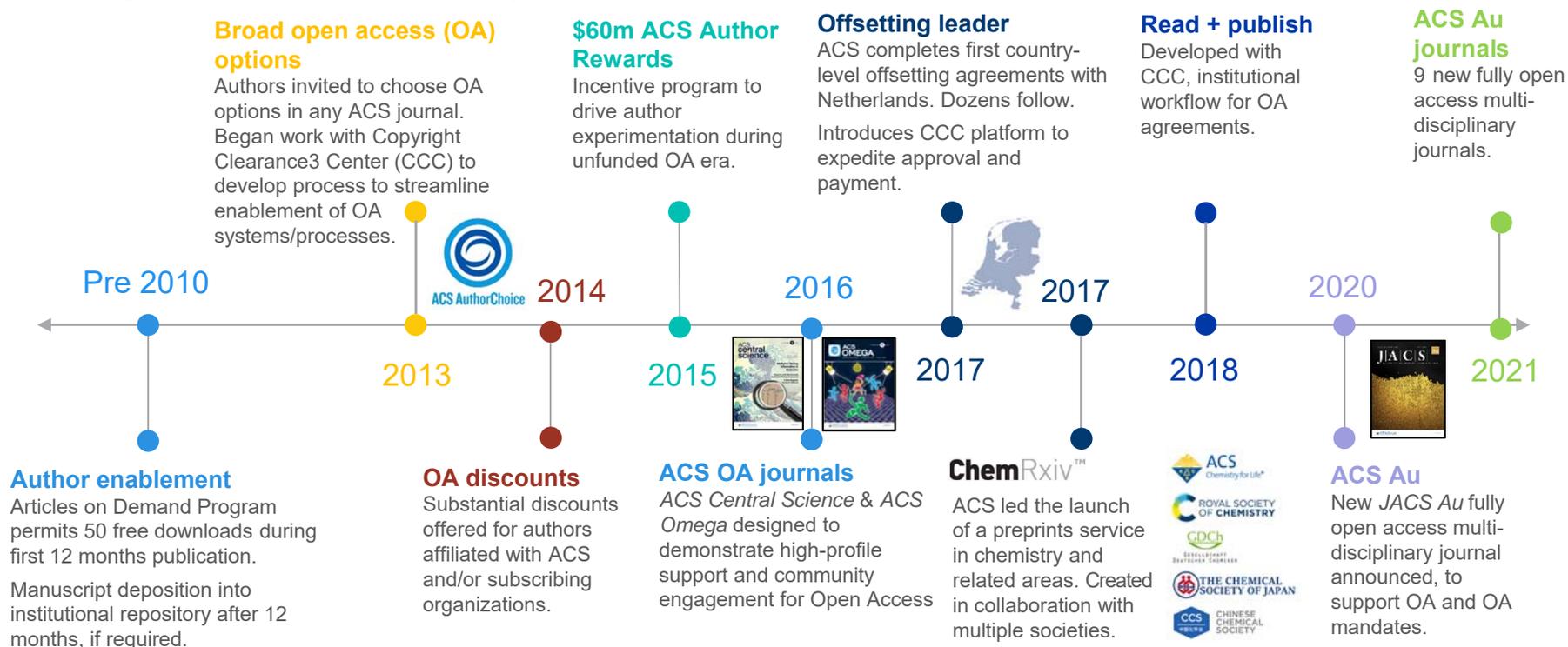
- Most cited and/or impactful scientific journals in five core chemistry categories, according to the 2019 *Journal Citation Reports*®
- More than **55,000** peer reviewed articles published annually by a global community of scientists
- Researchers from around the world engaged with over **1.3 million** research articles
- Over **156 million** article downloads from **6,000+** academic, government and corporate institutions
- **100,000+** original news stories



2019 data

# Goal 1 Provide information solutions

## Open access roadmap



## Goal 1 Provide information solutions Author and reviewer resources



English editing, formatting, figure services and translation by Ph.D.-level subject matter experts



Free peer-review training course designed by ACS editors/experts offering real-life guidance



Video series full of expert advice from the ACS editor community on tackling the challenges of scholarly publishing



The Society's outreach program for students, post-docs, tenure-track faculty, non-faculty researchers and ACS members

## Goal 1 Provide information solutions C&EN and its expanding digital offerings



**c&en**  
CHEMICAL & ENGINEERING NEWS

- C&EN is the world's most comprehensive and authoritative news source about chemistry and related fields
- C&EN has been published by ACS since 1923
- C&EN publishes daily news online, a weekly magazine in print and digital formats, weekly email newsletters, a video series, a podcast, a daily Alexa briefing and more



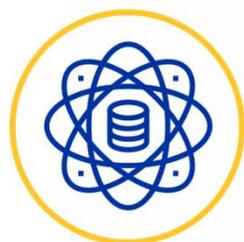
[facebook.com/cenews](https://facebook.com/cenews)  
[instagram.com/cenmag](https://instagram.com/cenmag)  
[twitter.com/cenmag](https://twitter.com/cenmag)

## Goal 1 Provide information solutions CAS is a specialist in scientific information



We power discovery to solve our world's biggest challenges.

With over 110 years of experience, no one knows more about scientific information and related technology than CAS.



**Unparalleled**  
scientific content



**Specialized**  
technology



**Unmatched**  
human expertise

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# Goal 1 Provide information solutions

Today, the CAS content collection is unparalleled in breadth, depth and quality



Image used under license from iStock.com

# Goal 1 Provide information solutions

## Partner with CAS to unleash innovation



Maximize the value of your IP portfolio

Ensure that your intellectual property is protected and find opportunities to extend into new markets.

Upgrade your data assets to drive success with new technologies that are transforming R&D.

Capture the promise of AI and big data

Stay ahead with a 360-degree view of the landscape

Avoid surprises and make smart investments with insight into the latest discoveries and competitive intelligence.

Get discoveries to market faster and optimize margins by giving researchers the information they need.

Accelerate your discovery pipeline

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## Goal 1 Provide information solutions

### Human expertise continues to differentiate CAS solutions and service today



- CAS now employs hundreds of scientists and technologists across disciplines
- Curate data from nearly 3 million publications a year
- Collectively speak 50+ languages
- Provide insight, context and connections between data beyond what algorithms can do



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# Goal 1 Provide information solutions CAS continues to develop new technologies and solutions to deliver insight and efficiency



The screenshot displays the SciFinder web interface. At the top, there is a search bar with 'Substances' selected and 'taxol' entered. Below the search bar, there are navigation options: 'Return to Home', 'Filter by', and 'Substances (1)'. The 'Filter by' section includes categories like 'Commercial Availability', 'Reaction Role', and 'Reference Role'. The main content area shows a search result for '33069-62-4' (Taxol) with its chemical structure, molecular formula  $C_{47}H_{51}NO_{14}$ , and statistics: 68K References, 3,434 Reactions, and 173 Suppliers.



Image used under license from iStock.com

# Goal 1 Provide information solutions

## CAS continues to develop new technologies and solutions to deliver insight and efficiency

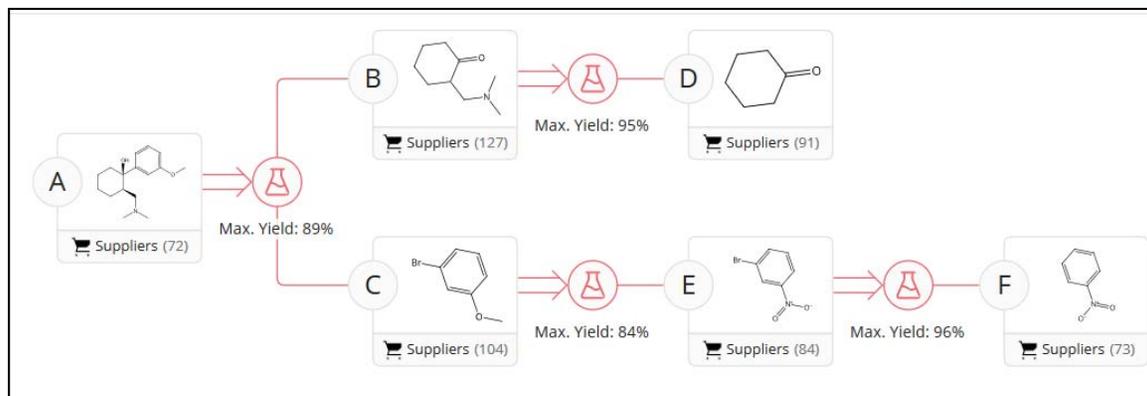


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# Goal 1 Provide information solutions

## CAS continues to develop new technologies and solutions to deliver insight and efficiency



**FORMULUS**  
A CAS SOLUTION

Formulations ▾

Component	Function	Amount Reported	Optionality
Group: montelukast layer	-	-	Mandatory
montelukast layer	-	50-65 % (w)	Mandatory
Cyclopropaneacetic acid, 1-[[[1 R]-1-[3-[(1 E)-2-(7-chloro-2-quinolinyl)ethoxy]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio]methyl], sodium salt (1:1)	-	3-15 % (w)	Mandatory
Magnesium stearate	-	0.10-2.00 % (w)	Mandatory
Lactose, monohydrate	-	30-60 % (w)	Mandatory
Croscarmellose sodium	-	1-5 % (w)	Mandatory
Cellulose	-	30-60 % (w)	Mandatory
Hydroxypropyl cellulose	-	1-5 % (w)	Mandatory
Water	-	30-50 % (w)	One or more
Group: rupatadine layer	-	-	Mandatory
Cellulose	-	30-60 % (w)	One or more
Rupatadine fumarate	-	5-20 % (w)	Mandatory
C.I. Pigment Yellow 42	-	0.10-2.0 % (w)	Mandatory
Magnesium stearate	-	0.10-2.0 % (w)	Mandatory

Experimental Activity

Descriptor	Notes	Details
dissolution	percent release of rupatadine fumarate in 0.5% solution of sodium dodecyl sulfate by USP apparatus II method at 37 degree celsius, after 45 minutes was measured	95.6 %



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# Goal 1 Provide information solutions

## Customized services are allowing innovators to leverage CAS assets in new ways



### AI & Machine Learning

#### Powerful predictions to transform R&D

- Specialized training sets
- Data structuring
- Customized molecular fingerprints
- Consulting



### Advanced Analytics

#### Actionable insights for data-driven decisions

- Prediction & insights
- Landscape & trend analysis
- Decision support



### Strategic IP

#### Insights for confident IP decisions

- IP search & analysis
- Patent landscape analysis
- Whitespace analysis



### Workflow Integration

#### More efficient R&D for faster discoveries

- API integration
- Data harmonization
- Data integrity
- Custom curation



### Knowledge Management

#### Unlock value from your scientific data

- Consultation & training
- Data management
- Data governance
- Custom search tools

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## Goal 1 Provide information solutions Supporting research to meet global needs



### ACS Petroleum Research Fund

- Supports the advancement of scientific education and fundamental research directly related to petroleum and fossil fuels
- The grant enables new investigators to start programs and established researchers to initiate a new research direction. **30** Nobel laureates have been supported by PRF grants

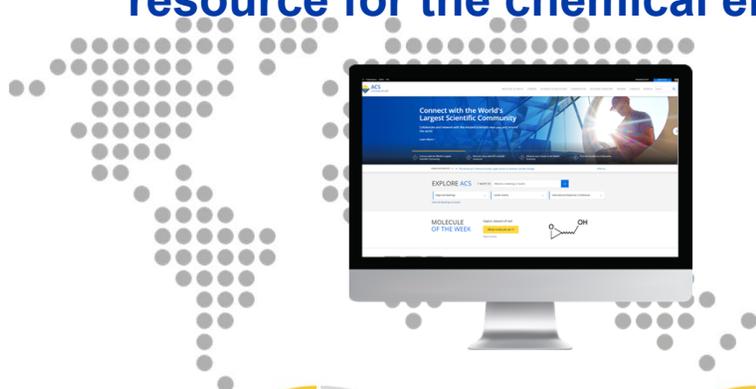


ACS also offers other grants and fellowships, such as:

- Herman Frasch Foundation Grants
- Irving S. Sigal Postdoctoral Fellowships

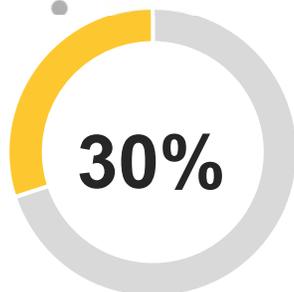
# Goal 1 Provide information solutions

## The Society's web presence is the premier online resource for the chemical enterprise

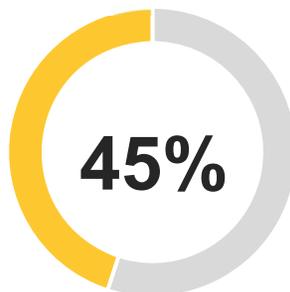


**3M+**

Website views per month



Access through mobile devices



Views from international users



**38,000+**

Video views per month



**72,000+**

Downloads (per month)

# Links



**Meetings and Conferences**  
[www.acs.org/meetings](http://www.acs.org/meetings)

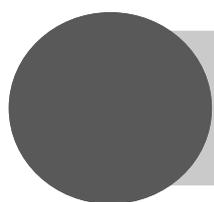
**Publications**  
<https://pubs.acs.org>

**C&EN**  
<https://cen.acs.org>

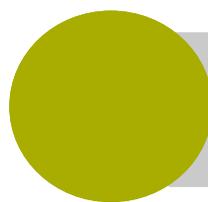
**Open Access Programs**  
<https://acsopenaccess.org>

**Author and Reviewer Resources**  
<https://publish.acs.org>

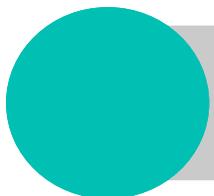
# Links



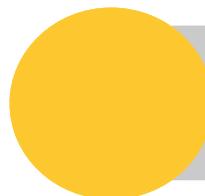
**CAS**  
[www.cas.org](http://www.cas.org)



**Petroleum Research Fund**  
[www.acs.org/prf](http://www.acs.org/prf)



**CAS Products**  
[www.cas.org/products](http://www.cas.org/products)



**ACS Website**  
[www.acs.org](http://www.acs.org)

## Goal 2

# Empower members



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## Goal 2 Empower members

### Helping to forge career pathways



#### ACS Career Navigator™

has resources that help ACS members stand out in the crowd when contemplating a new career path, searching for a job or striking out on their own.

#### Career Growth & Development

- ACS Career Pathways™
- Personal career consulting
- ChemIDP™

#### Finding & Landing the Job

- ACS Career Navigator Live
- C&EN Jobs
- Getexperience.acs.org
- ACS Salary Calculator™

#### Exploring Career Options

- College to Career website
- *inChemistry*
- *Graduate & Postdoctoral Chemist*

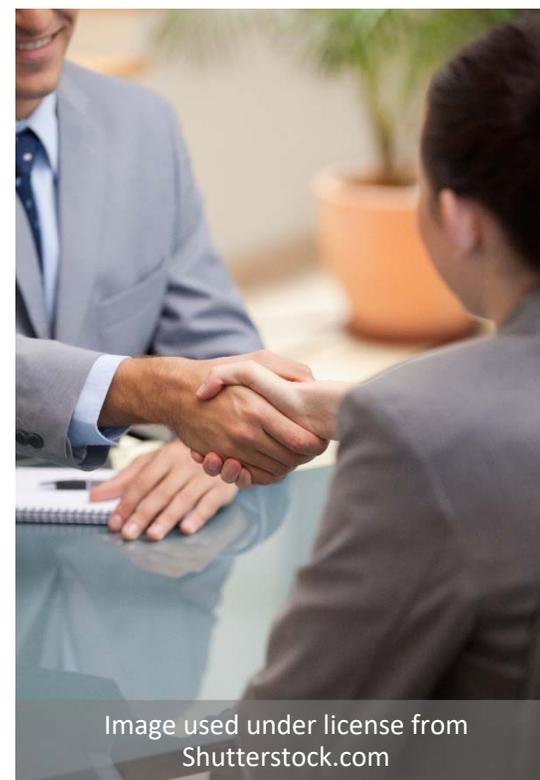


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## Goal 2 Empower members

### Developing leadership skills



The ACS Leadership Development System® offers courses designed to teach essential management and leadership skills to gain a competitive edge in today's global economy. Courses offered in-person include:

- **Fostering Innovation**
- **Leading Without Authority**
- **Engaging Colleagues in Dialogue**
- **Coaching and Feedback**
- **Developing Communication Strategies**
- **Engaging and Motivating Volunteers**
- **Collaborating Across Boundaries**
- **Leading Change**
- **Strategic Planning**
- **Extraordinary Leader**

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## Goal 2 Empower members Fostering professional education



Available in-person and online

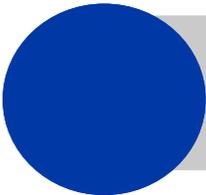
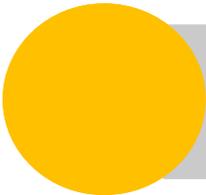
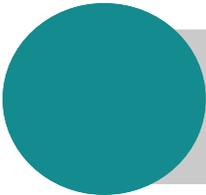
- 7+ subject areas
- 120+ course topics in catalog
- 45+ topics scheduled publicly
- 110+ total course instances
- 600 - 800 learners per year



WOCinTech Chat licensed under CCBY

# Links



-  **Careers**  
[www.acs.org/careers](http://www.acs.org/careers)
-  **ACS Leadership Development System®**  
[www.acs.org/leadershipdevelopment](http://www.acs.org/leadershipdevelopment)
-  **Professional Education**  
[www.proed.acs.org](http://www.proed.acs.org)

## Goal 3

# Support excellence in education



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## Goal 3 Support excellence in education

### Promoting chemical safety



Become the authoritative source for laboratory chemical safety information

Create strategic partnerships and communities across disciplines

Support excellence in safety education

Develop and execute a progressive safety communication strategy

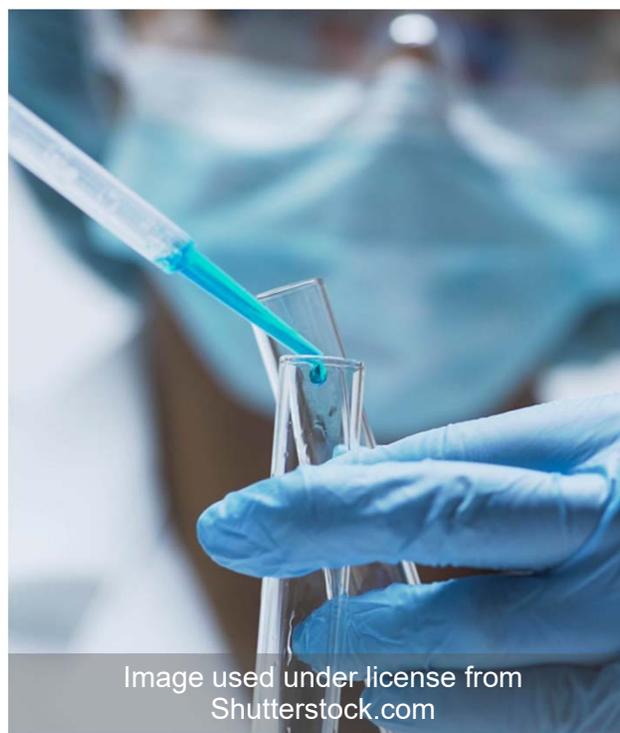
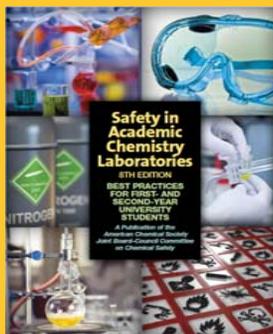


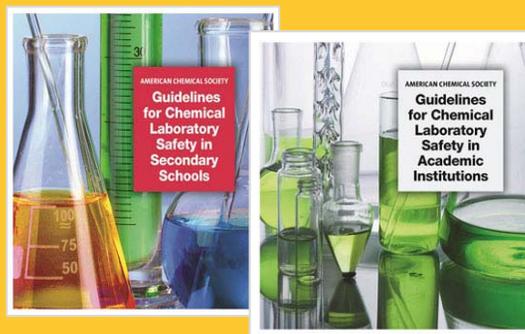
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# Goal 3 Support excellence in education

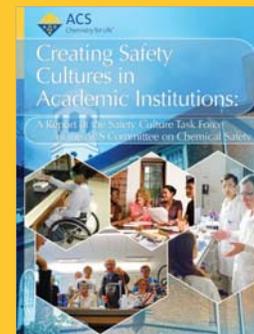
## Promoting chemical safety



Targets safety concerns encountered by first- and second-year college students in general and organic chemistry laboratories



Provides guidance for faculty, teachers and students to develop, enhance and assess chemistry safety education



Discusses elements of safety culture and recommendations for strong safety cultures in academic institutions

## Goal 3 Support excellence in education

### Offering resources for learners and educators



#### Resources for K-12

- Adventures in Chemistry
- middleschool chemistry.com
- *ChemMatters*
- *ChemCom*
- Science Coaches
- Inquiry in Action
- Chemistry Olympiad

#### Resources for students and postdocs

- *inChemistry Magazine*
- *Graduate & Postdoc Chemist*
- Career Kickstarter
- Postdoc-to-Faculty workshop

#### Resources for educators

- Laboratory safety resources and recommendations
- ACS Education publications
- Assessments and study guides
- ACS Approval Process
- New Faculty Workshop

## Goal 3 Support excellence in education

### Providing community support



400+  
—  
ACS  
ChemClubs

10+  
—  
ACS  
International  
ChemClubs

1,100+  
—  
ACS Student  
Chapters

80+  
—  
ACS  
International  
Student  
Chapters



Salt Lake Community College  
ACS Student Chapter

## Goal 3 Support excellence in education Meeting the needs of chemistry teachers



**AACT**<sup>®</sup>  
American Association  
of Chemistry Teachers

7,500+  
—  
Members

850+  
—  
Labs, demos,  
lesson plans and  
other activities

140+  
—  
Professional  
development  
webinars



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## Goal 3 Support excellence in education Promoting diversity, equity, inclusion and respect



### Project SEED



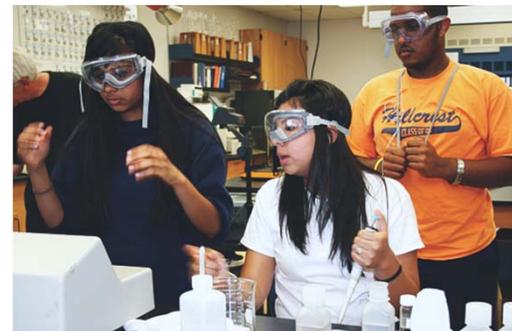
11,200+  
economically  
disadvantaged high  
school students  
awarded scholarships &  
research opportunities

### ACS Scholars Program



3,400+  
underrepresented  
students majoring  
in chemistry  
awarded scholarships &  
mentoring support

### ACS Bridge Project



\$5.3M+  
to broaden diversity  
in chemical sciences  
education over  
five years

# Links



**Chemical & Laboratory Safety**  
[www.acs.org/safety](http://www.acs.org/safety)

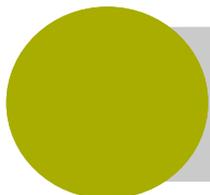
**AACT**  
<https://teachchemistry.org>

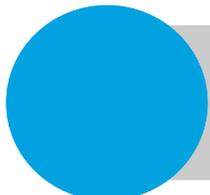
**Students & Educators**  
[www.acs.org/education](http://www.acs.org/education)

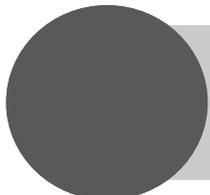
**Diversity & Inclusion**  
[www.acs.org/diversity](http://www.acs.org/diversity)

# Links



 **Project SEED**  
[www.acs.org/projectseed](http://www.acs.org/projectseed)

 **ACS Scholars**  
[www.acs.org/scholars](http://www.acs.org/scholars)

 **ACS Bridge Project**  
[www.acs.org/bridge](http://www.acs.org/bridge)

**Goal 4**  
**Communicate**  
**chemistry's**  
**value**



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## Goal 4 Communicate chemistry's value Working to ensure the health of the chemistry enterprise



225+

Congressional briefings for the ACS Science & the Congress project

75+

Congressional Chemistry Caucus members

15,000+

Act4Chemistry Legislative Action Network members

20+

ACS-issued public policy statements



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# Goal 4 Communicate chemistry's value

## Improving legislative understanding of key public policy issues



Innovation through research and technology

Science education and workforce

Sustainability and the environment

Science in public policy



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## Goal 4 Communicate chemistry's value Translating public policy issues into action



### ACS staff registered lobbyists

- Work with policymakers, the administration and federal agency staff
- Draft and endorse legislation
- Lead stakeholder coalitions
- Support bipartisan congressional caucuses, e.g., Chemistry Caucus, STEM Education Caucus

### ACS member public policy engagement

- Advocacy training workshops
- Act4Chemistry Legislative Action Network
- Meetings on Capitol Hill and with district offices and federal agencies
- Provide congressional testimony
- Participate in congressional briefings

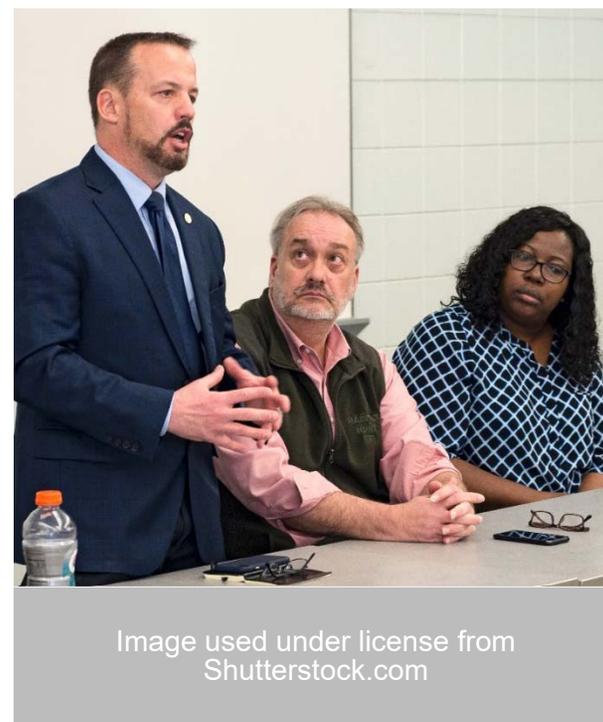


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## Goal 4 Communicate chemistry's value Communicating science to the media



29,000+

News stories  
per year from  
media outreach

49M+

Views of the  
*Reactions*  
video series

*The New York Times,*  
*The Economist,* ABC News,  
NPR, *Wall Street Journal,*  
*The Washington Post* & more

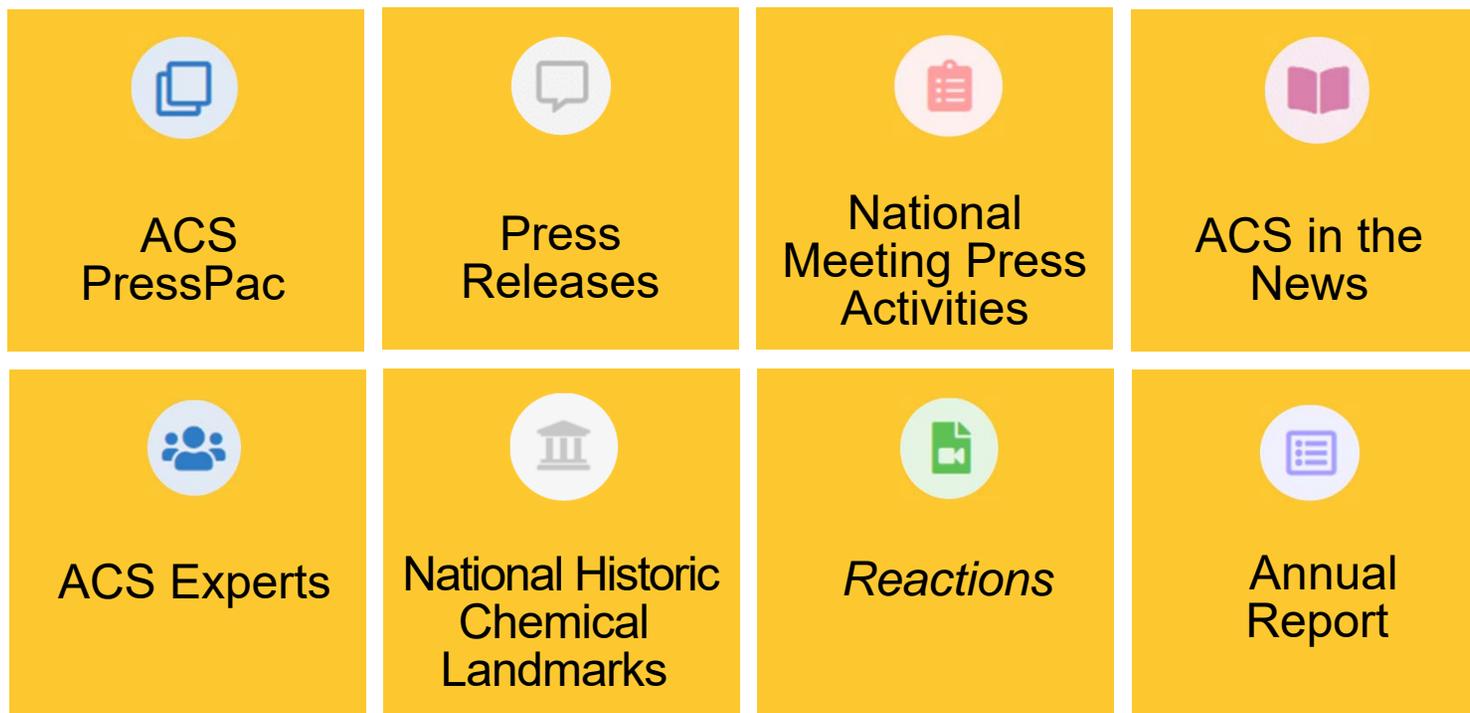
Some outlets that have run ACS-  
related news stories



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## Goal 4 Communicate chemistry's value Communicating science through various channels

AA22



**Slide 47**

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**AA22**

Does anything need to be changed with this slide? Confirm with Sue & Glenn.

Abraham, Anju, 10/6/2020

# Goal 4 Communicate chemistry's value

## Communicating science to the public



**Kids and Chemistry**

**Chemistry Festivals**

**Global Outreach Training Programs**



## Goal 4 Communicate chemistry's value Promoting global scientific interests



ACS is committed to supporting the global chemistry community by:

- Collaborating with organizations to highlight the contributions of chemistry to the UN Sustainable Development Goals
- Empowering ACS members to build active chemistry communities through our 25 international chemical sciences chapters
- Monitoring potential threats to scientific freedom through the Science & Human Rights Initiative
- Promoting global scientific collaboration through international travel and project grants



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## Goal 4 Communicate chemistry's value Seek sustainable solutions



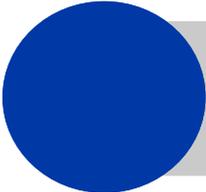
We recognize that chemistry is crucial to achieving many of the U.N. Sustainable Development Goals. ACS strives to lead change in this area by:

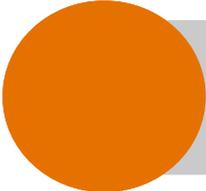
- Communicating progress toward the goals and motivating the community
- Fostering innovation, collaboration and translation of research
- Advocating for aligned policy changes
- Expanding global partnerships

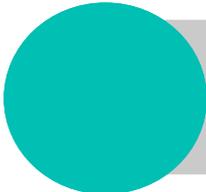


# Links



 **ACS Advocacy**  
[www.acs.org/advocacy](http://www.acs.org/advocacy)

 **ACS Policy**  
[www.acs.org/policy](http://www.acs.org/policy)

 **ACS Press Room**  
[www.acs.org/pressroom](http://www.acs.org/pressroom)

# Links



**ACS International**  
[www.acs.org/international](http://www.acs.org/international)

**ACS Outreach**  
[www.acs.org/outreach](http://www.acs.org/outreach)

**Green Chemistry**  
[www.acs.org/gci](http://www.acs.org/gci)

# Goal 5

## Embrace and advance inclusion in chemistry

## Goal 5 Embrace and advance inclusion Supporting and affirming personal identity



The Author Name Change Policy removes or reduces barriers to inclusion, professional mobility and author credit by fulfilling name changes to previous ACS publications. The policy seeks to recognize authors who have changed their names for many reasons, including – but not limited to – gender identity, marriage, divorce or religious conversion.



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## Goal 5 Embrace and advance inclusion Supporting the recruitment and retention of teachers



ACS has joined other organizations in the Get the Facts Out project to change the conversation around STEM teacher recruitment, providing a toolkit and data to dispel the myths.

ACS-Hach Programs provide scholarships for future high school teachers, along with grants and mentoring for current high school teachers.

# Get the Facts Out

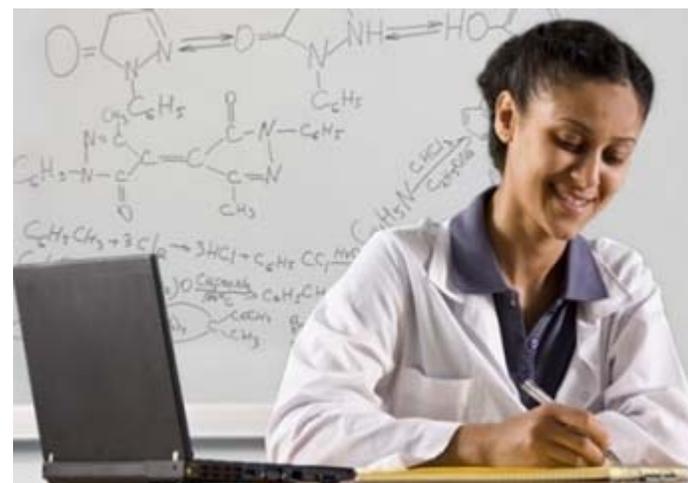


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## Goal 5 Embrace and advance inclusion Breaking barriers for student success



Each year, ACS Project SEED provides 350+ high school students from economically disadvantaged backgrounds with summer research experiences in various fields and industries, as well as stipends and mentoring in college preparation and professional development.



## Goal 5 Embrace and advance inclusion Empowering under-represented students



Each year, the ACS Scholars Program provides ~350 undergraduate students from groups that are underrepresented in chemistry with scholarship and mentoring support as they pursue their degrees in the chemical sciences.



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## Goal 5 Embrace and advance inclusion Creating a model of bridging experiences



The ACS Bridge Project is developing and connecting programs and activities that improve access to graduate education and completion of Ph.D. programs. Professional development activities, a national network of chemistry programs and the Inclusive Graduate Education Network are supporting ACS Bridge Fellows and other students from underrepresented groups.



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## Goal 5 Embrace and advance inclusion Celebrating the diversity of chemistry



In 2020, over 20 women entrepreneurs were featured in C&EN's inaugural Trailblazers issue. The issue highlighted women in chemistry who have launched their own firms to find treatments for rare diseases, build better batteries, tackle the opioid crisis and more. In 2021, C&EN's Trailblazers issue will celebrate Black chemists and chemical engineers.



## Goal 5 Embrace and advance inclusion Including and representing global voices

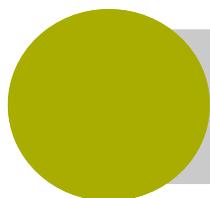


Over 30 scientists participated in the CAS Future Leaders Program in 2020. The program cultivates leaders worldwide through training, networking opportunities, CAS product access and expense-paid trips to CAS headquarters and ACS national meeting.

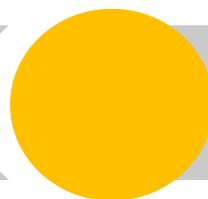


2019 CAS Future Leaders

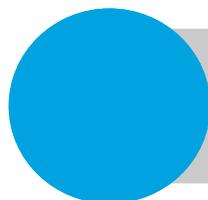
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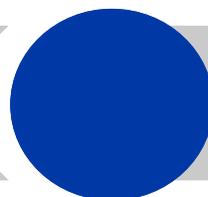
**Project SEED**  
[www.acs.org/projectseed](http://www.acs.org/projectseed)



**ACS Scholars**  
[www.acs.org/scholars](http://www.acs.org/scholars)

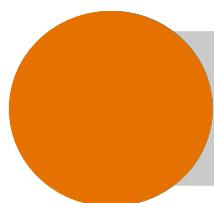


**ACS Bridge Project**  
[www.acs.org/bridge](http://www.acs.org/bridge)

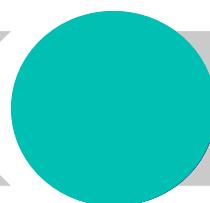


**CAS Future Leaders Program**  
<https://www.cas.org/about/future-leaders>

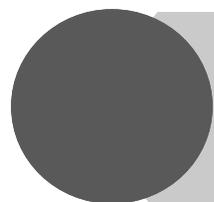
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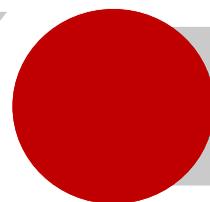
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**C&EN Trailblazers**  
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