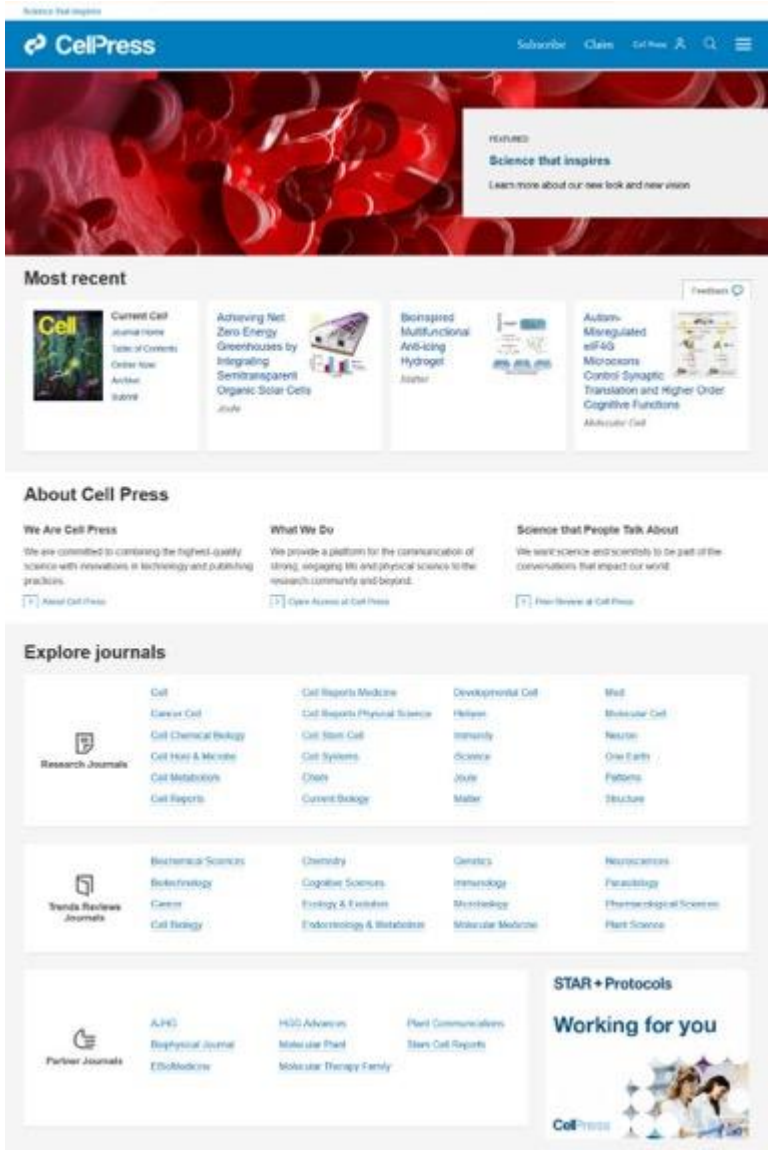
How to Publish in High-Impact Journals

Philip Earis
Editor-in-Chief
Joule, Cell Press

5th March 2020

Overview

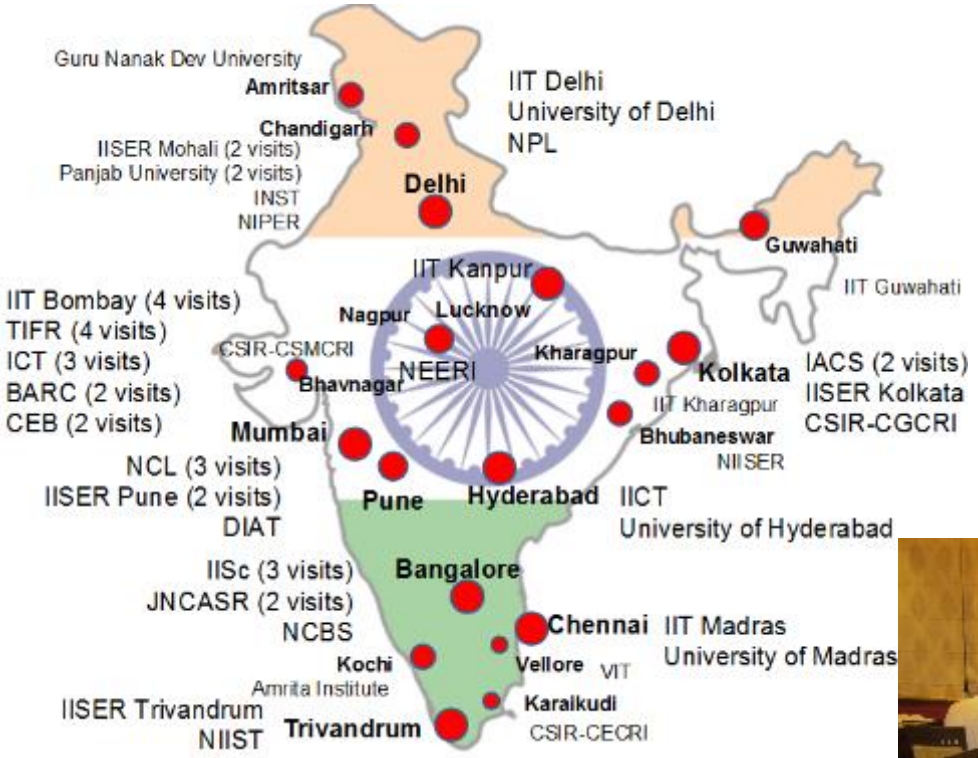
- Experience of working in India
- Introduction to Cell Press portfolio
- Research output in India
- Expansion into physical sciences
- Upcoming launches
- Manuscript preparation
- The editorial process
- Innovation and community building



Experience working in India

My Experience in India

- Lived in Mumbai (2013-2016)
- Worked for Royal Society of Chemistry (RSC) as Executive Editor
- Extensive network-building & research institute visits across India
- Wider projects using my science & technology knowledge and connections in an Indian context



Solar energy

- Founded & ran solar energy project, *Project Light* to benefit unelectrified villages and slums
- Collaborated with Indian researchers to develop modular solar lighting systems








Environmental Projects

- Highlighted air pollution in urban India
- Plastic recycling pilot project


02 | metro | hindustantimes

ht for mumbai AIR POLLUTION

What's making you gasp for breath?

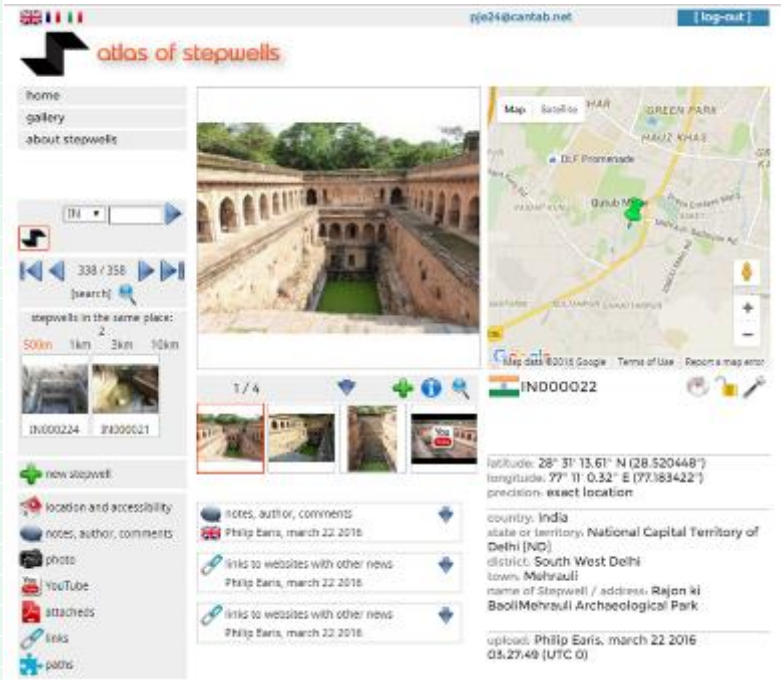
CHOKEHOLD ON CITY

'City residents are dying younger because of inaction'

Heritage Projects

- I Established Stepwell Atlas, a collaborative mapping portal for stepwells
- See www.stepwells.org and ‘Stepwell Atlas’ Android App). Around 3000 stepwells mapped so far

761	Rajasthan [RJ]
546	Gujarat [GJ]
321	Madhya Pradesh [MP]
283	Karnataka [KA]
261	Maharashtra [MH]
142	Uttar Pradesh [UP]
74	Kerala [KL]
64	Andhra Pradesh [AP]
56	Haryana [HR]
52	Telangana [TG]
51	Tamil Nadu [TN]
20	NCT / Delhi [ND]
19	Orissa [OR]
14	Bihar [BR]
9	Assam [AS]
5	Punjab [PB]
5	Chhattisgarh [CG]
4	Goa [GA]
4	Himachal Pradesh [HP]
3	Uttarakhand [UL]
3	Jammu and Kashmir [JK]
2	Jharkhand [JH]
1	West Bengal [WB]



Wider experience

Wider experience

Wider experience

Cell Press portfolio of high-impact journals

Cell Press family of journals

- Primary Research Journals
  - *Chem* and *Joule* were the first introduced in physical sciences
  - *Matter* and *One Earth* in 2019
- OA journals, including *Cell Reports* and *iScience,* first interdisciplinary journal
- Trends Review journals
  - Newest: *Trends in Chemistry* in 2019

Primary journals

21 Primary research journals

Recent launches in the physical sciences, including *Chem*, *Joule*, *Matter, Cell Reports Physical Science*

Upcoming launches: *Med, Cell Reports Medicine, Patterns, STAR Protocols*

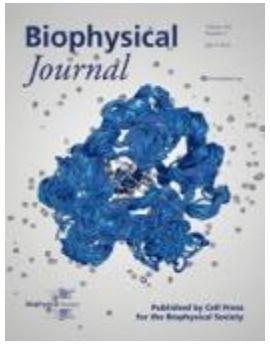
CellPress

Trends Reviews journals

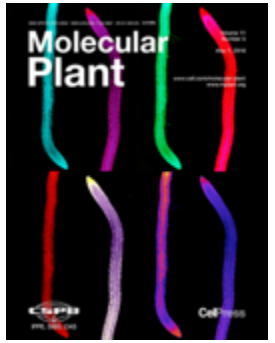
Partner journals

American Society of Human Genetics

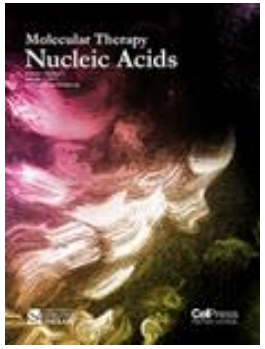
International Journal for Stem Cell Research (IJSCR)

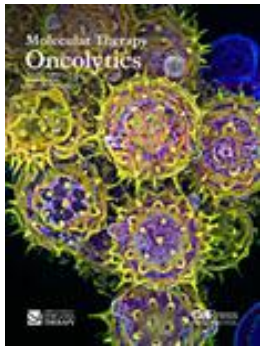


The Biophysical Society



Institute of Plant Physiology and Ecology, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, and the Chinese Society of Plant Biology

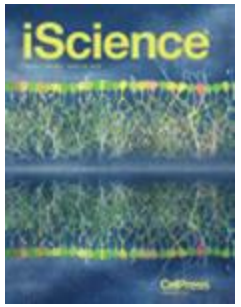


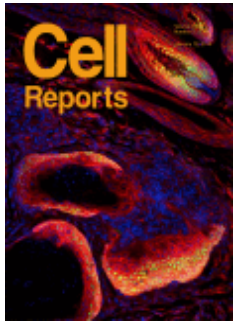


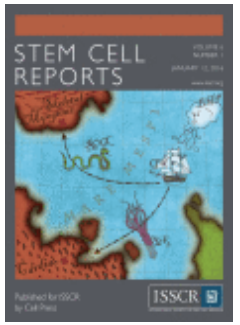
American Society of Gene & Cell Therapy

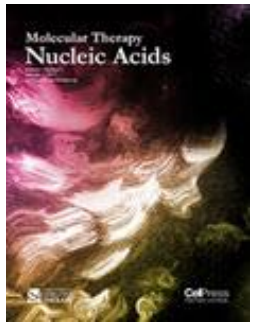
OA and hybrid journals

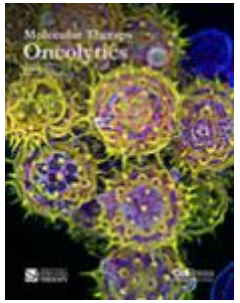
Open access titles



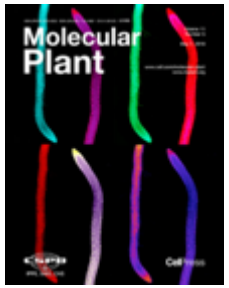








Hybrid titles



Research output in India

Research Output in Cell Press: India

Performance

327

Scholarly Output

View list of publications

8,844

Views Count

2.21

Field-Weighted Citation Impact

13,500

Citation Count

215

International Collaboration

Publications co-authored with Institutions in other countries/regions

India:

65.7%

Institutional Research Output in Cell Press: Top 15

Institution	Scholarly Output
Tata Institute of Fundamental Research	70
CSIR - Biomedicine and Agriculture	41
Indian Institute of Science Bangalore	26
CSIR - Industry and Standards	19
Indian Institute of Technology, Bombay	17
Indian Institute of Technology, Kanpur	15
Indian Institute of Science Education and Research Pune	10
Manipal Academy of Higher Education	10
National Institute of Immunology India	10
Raman Research Institute	9
CSIR Indian Institute of Chemical Technology	8
Indian Institute of Science Education and Research Mohali	8
Jawaharlal Nehru Centre for Advanced Scientific Research	8
University of Hyderabad	8

Authors 5+ Articles

Author	Affiliation
Chattopadhyay, Amitabha	CSIR - Biomedicine and Agriculture
Mayor, Satyajit	Tata Institute of Fundamental Research
Gokhale, Rajesh S.	CSIR - Biomedicine and Agriculture
Maiti, Sudipta	Tata Institute of Fundamental Research
Nampoothiri, Sheela	Amrita Vishwa Vidyapeetham
Pullarkat, Pramod A.	Raman Research Institute
Shukla, Arun Kumar	Indian Institute of Technology, Kanpur

Cell Press physical sciences expansion

Joule

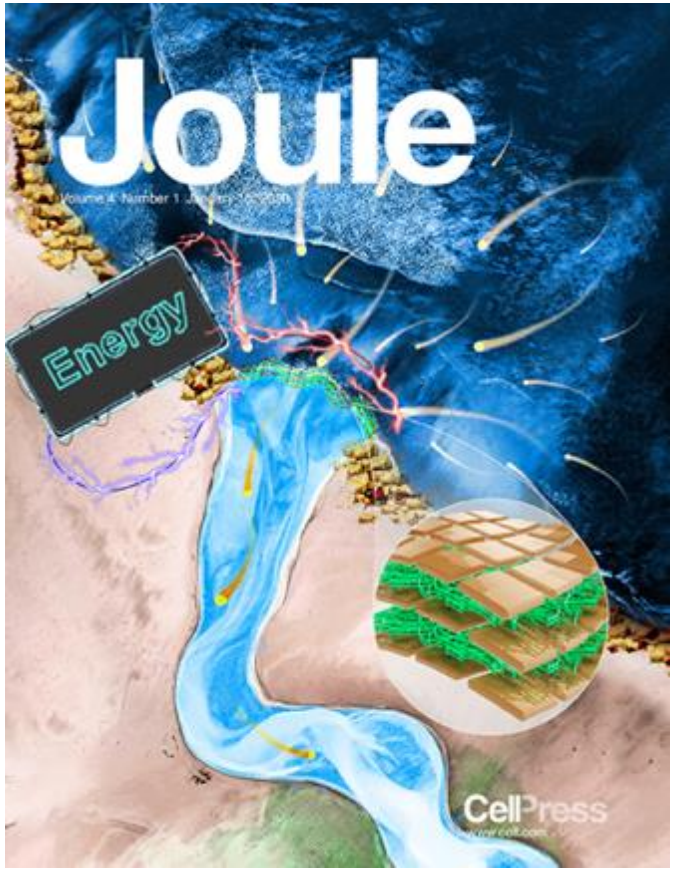
- *A* home for outstanding and insightful research, analysis and ideas addressing a key global challenge: the need for more sustainable energy.
- *A* distinctive and forward-looking journal, bridging disciplines and scales of energy research. *Joule* connects all who are researching and analyzing the challenges — scientific, technical, economic, policy and social — of providing sustainable energy solutions.
- *Joule* spans scales of energy research, from fundamental laboratory research into energy conversion and storage up to impactful analysis at the global level.
- *Joule* purposefully highlights and amplifies the implications, challenges and opportunities of novel energy research for different groups working across the entire spectrum of the field.

The New York Times

POPULAR SCIENCE

Science AAAS

SCIENTIFIC AMERICAN



Launched September 2017

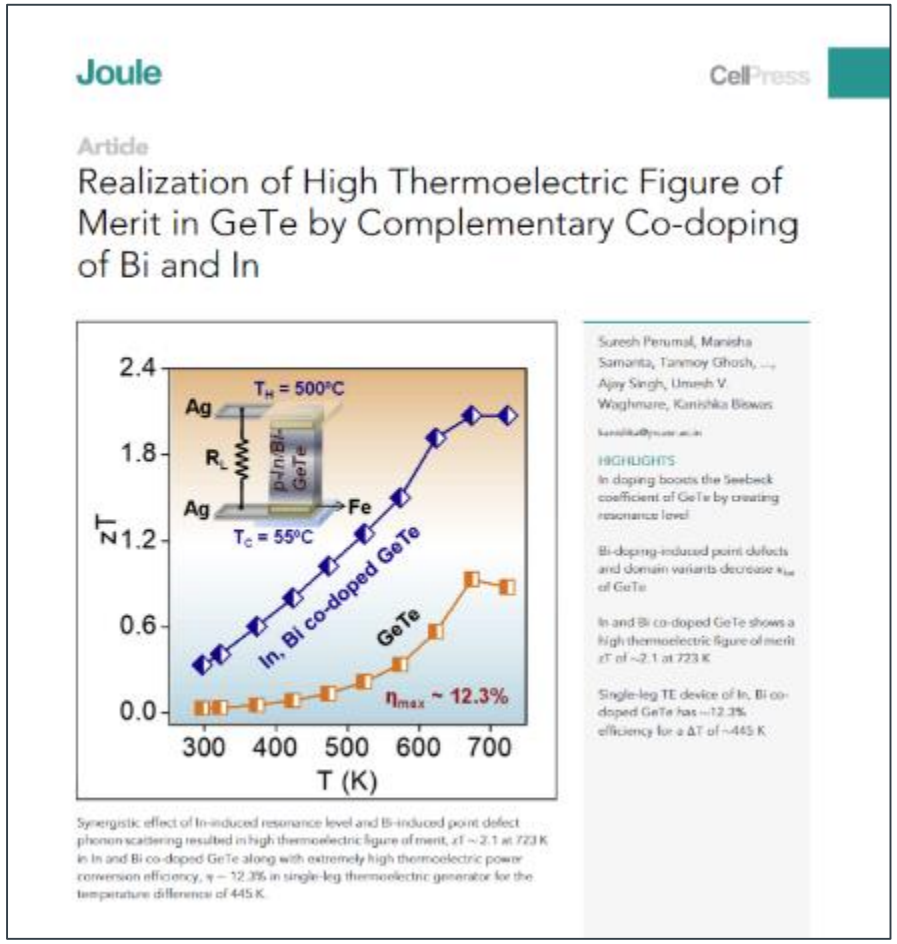
www.cell.com/joule

Philip Earis
Editor-in-Chief

PROSE AWARD WINNER

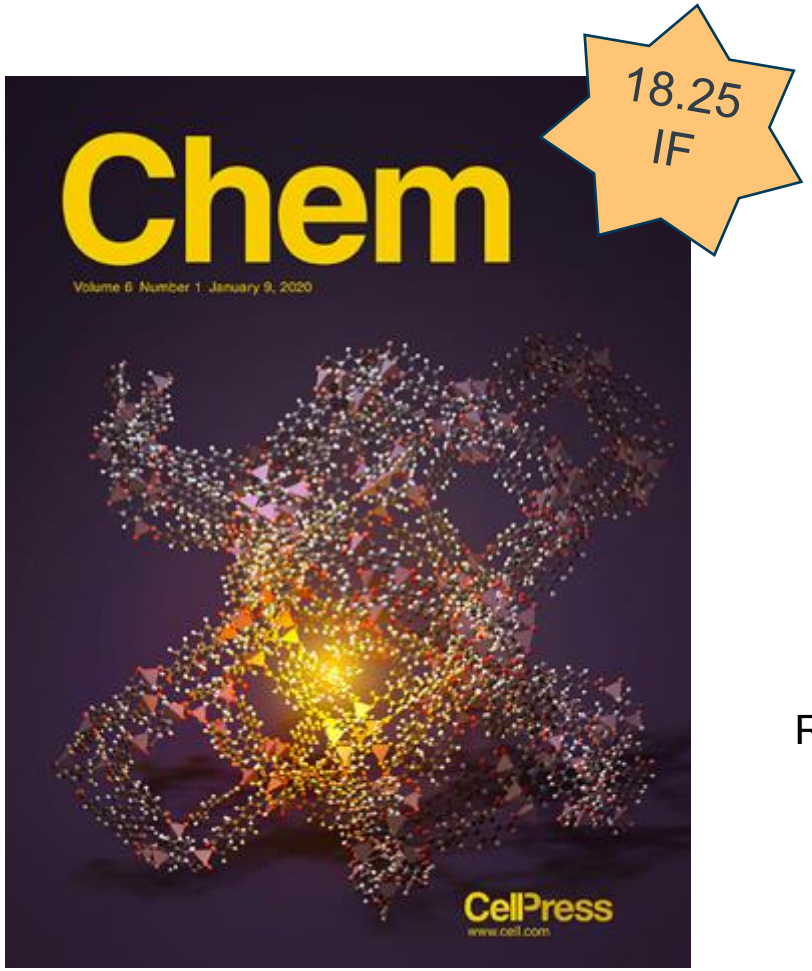
Latest Indian Research in *Joule*

Dr. Kanishka Biswas
Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur, Bangalore



Chem

Chem, a sister journal to *Cell*, provides a home for seminal and insightful research and showcases how fundamental studies in chemistry and its sub-disciplines may help in finding potential solutions to the global challenges of tomorrow.



Launched July 2016

www.cell.com/chem

Robert Eagling, PhD
Editor-in-Chief

Content is categorized following 10 Sustainable Development Goals identified by the UN:

- Good health and well-being
- Affordable and clean energy
- Clean water and sanitation
- Climate action
- Zero hunger
- Responsible consumption and production
- Industry, Innovation, and Infrastructure
- Life on land
- Sustainable cities and communities
- Life below water

CellPress

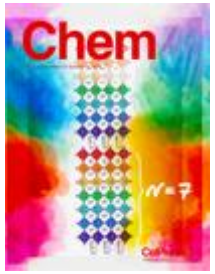
***Chem*: Award Winning in First Year**

PROSE AWARD FOR EXCELLENCE IN PHYSICAL SCIENCES & MATHEMATICS

CHEMISTRY & PHYSICS

BEST NEW JOURNAL IN PHYSICAL SCIENCES AND MATHEMATICS

2019 Nobel Prize Connections



John B. Goodenough

M. Stanley Whittingham

Akira Yoshino

Stabilizing Cathode Materials of Lithium-Ion Batteries by Controlling Interstitial Sites on the Surface
Jun-Yu Piao, Yong-Gang Sun, Shu-Yi Duan, An-Min Cao, Xue-Long Wang, Rui-Juan Xiao, Xi-Qian Yu, Yue Gong, Lin Gu, Yutao Li, Zhen-Jie Liu, Zhang-Quan Peng, Rui-Min Qiao, Wan-Li Yang, Xiao-Qing Yang, John B. Goodenough, Li-Jun Wan
Chem, Vol. 4, Issue 7

Inhibiting Polysulfide Shuttling with a Graphene Composite Separator for Highly Robust Lithium-Sulfur Batteries
Tianyu Lei, Wei Chen, Weiqiang Lv, Jianwen Huang, Jian Zhu, Junwei Chu, Chaoyi Yan, Chunyang Wu, Yichao Yan, Weidong He, Jie Xiong, Yanrong Li, Chenglin Yan, John B. Goodenough, Xiangfeng Duan
Joule, Vol. 3, Issue 1

Stabilizing a High-Energy-Density Rechargeable Sodium Battery with a Solid Electrolyte
Hongcai Gao, Sen Xin, Leigang Xue, John B. Goodenough
Chem, Vol. 4, Issue 4

Nitrogen-Doped Carbon for Sodium-Ion Battery Anode by Self-Etching and Graphitization of Bimetallic MOF-Based Composite
Yuming Chen, Xiaoyan Li, Kyusung Park, Wei Lu, Chao Wang, Weijiang Xue, Fei Yang, Jiang Zhou, Liumin Suo, Tianquan Lin, Haitao Huang, Ju Li, John B. Goodenough
Chem, Vol. 3, Issue 1

The Origin of Superior Performance of Co(OH)2 in Hybrid Supercapacitors
Hongcai Gao, Sen Xin, John B. Goodenough
Chem, Vol. 3, Issue 1

Critical Parameters for Evaluating Coin Cells and Pouch Cells of Rechargeable Li-Metal Batteries
Shuru Chen, Chaojiang Niu, Hongkyung Lee, Qiuyan Li, Lu Yu, Wu Xu, Ji-Guang Zhang, Eric J. Dufek, M. Stanley Whittingham, Shirley Meng, Jie Xiao, Jun Liu
Joule, Vol. 3, Issue 4

Matter: It's material.

The home for multi-disciplinary, transformative material science research – from fundamentals to application, from nano to macro.

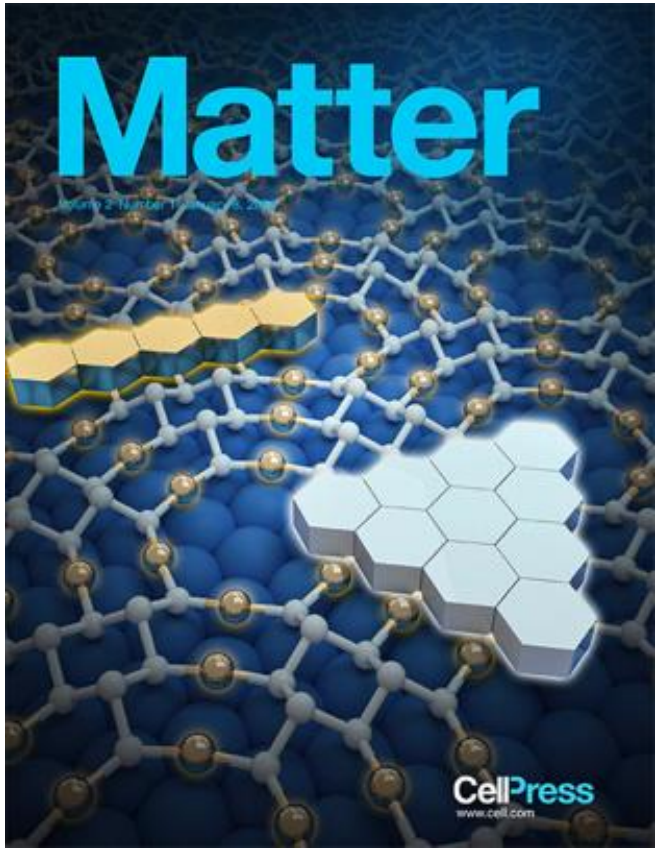
MULTI-DISCIPLINARY

Build bridges within and across disciplines

We publish high-quality, transformative research across disciplines related to:

- Fundamental synthesis, structure, and properties
- Performance of emerging material systems
- Novel characterization methods

Articles on materials of any state, scale, composition, or material will be considered.



Steven W. Cranford, PhD
Editor-in-Chief

Launched July 2019
www.cell.com/matter

CellPress

Matter provides full-length research articles, reviews, topical perspectives, paper previews, opinions, personnel stories, and other editorial content of general interest to the global materials community. The journal aims to be the premier resource for researchers in both academia and industry, providing a platform of inspiration for the next generation of materials scientists.

One Earth

The home for high-quality research that seeks to understand and address today's environmental Grand Challenges.

One Earth fosters depth and breadth of insights into:

- **Environmental change**
  Drivers, mechanisms, and long-term context.
- **Earth systems**
  A thorough understanding of the planetary boundaries, thresholds, and tipping points.
- **Transformative solutions**
  An integrated approach toward a sustainable future.

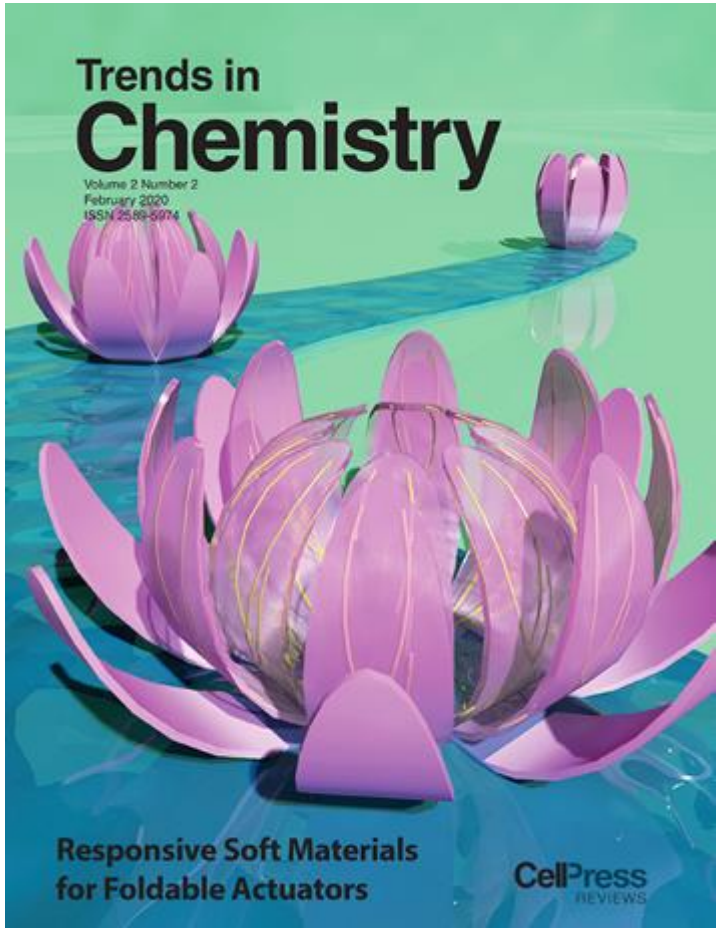
Lewis Collins, PhD
Editor-in-Chief

Launched September 2019
www.cell.com/one-earth

CellPress

One Earth is publishing significant original research that seeks to understand and address today's environmental grand challenges. The journal publishes across the full spectrum of global environmental change and sustainability science, providing a single platform to unite research from the natural, social, and applied sciences.

- Analytical
- Biological
- Catalysis
- Colloids
- Computational
- Environmental
- Electrochemistry
- Green
- Inorganic and organometallic
- Materials
- Medicinal
- Organic
- Physical
- Polymer
- Supramolecular



Thomas Dursch, PhD
Editor-in-Chief

Launched April 2019
www.cell.com/trends/chemistry

CellPress

Trends in Chemistry represents a new global platform for discussion of significant and transformative concepts in all phases of chemistry. Undoubtedly, uncovering new frontiers in chemistry will have significant impact on many of the imposing challenges facing our world today. The journal offers readable, multidisciplinary Review, Opinion, and short articles that are thoughtfully designed to keep students and leading scientists alike updated on the most pressing issues in the field.

Open Access Multi-Disciplinary

iScience

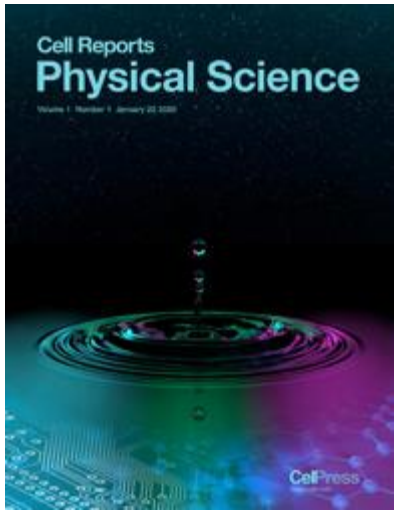
- *iScience* publishes basic and applied research that advances a specific field across life, physical, and earth sciences.
- Its no-nonsense approach to submissions is simple, fast, and fair, and its commitment to integrity means that it publishes transparent methods with high editorial standards.

Launched May 2018
www.cell.com/iscience

Cell Reports Physical Science

Publishes cutting-edge research across the spectrum of the physical sciences, including:

- Chemistry
- Physics
- Materials science
- Energy science
- Engineering
- Related work



Launched January 2020
www.cell.com/cell-reports-physical-science

open access

Cell Press upcoming launches

Med

Content Summer 2020
www.cell.com/med

Patterns

Content Summer 2020
www.cell.com/patterns

Cell Reports Medicine

Content Summer 2020
www.cell.com/cell-reports-medicine

STAR Protocols

Content Spring 2020
www.cell.com/star-protocols

Manuscript preparation

Questions to answer before you write

Think about WHY you want to publish your work.

- Have you done something **new**?
- Is there anything **challenging** in your work?
- Is the work related directly to a current **topic of high interest**?
- Have you **provided solutions** to some difficult problems?

If you can answer “yes” to some or all of these questions, then start preparations for your manuscript

Pick the right journal

Identify the sector of readership/community for which a paper is meant

Identify the interest of your audience

- Match this interest to your choice of journal

Read the Aims and Scope page

Does the journal publish on the topic?

- Look at the papers that you cite
- Do a literature search

The right journal will have editors who:

- know the field and the important questions being asked
- know reviewers
- can guide the process and resolve disputes

Why publish at Cell Press?

- Full-time in-house professional editors
- Impartial surrogates for the broad readership
- Actively engage the authors and reviewers
- Timely decisions
- Responsive and hospitable
- Maintaining high scientific standards during review process
- Team-based editorial decision making
- Listen to the communities we serve
- Experiment and innovate
- Reputation for rigor
- Post-publication promotion:
- Previews, author audio or video interviews, press releases, social media

What makes a good manuscript?

- Contains a scientific message that is clear, useful, and exciting
- Conveys the authors' thoughts in a logical manner such that the reader arrives at the same conclusions as the author
- Is constructed in the format that best showcases the authors' material
- Is written in a style that transmits the message clearly

General points about paper writing

Importance of title and abstract

What's the story? Tell it as simply and concisely as possible

Ensure logical layout of arguments/flow of experiments (the chronology of the experiments is not important)

Make use of summary statements

Get feedback before submission

- Recruit colleagues outside of your area to review it, and ask for an honest appraisal
  - *Is the flow of logic clear?*
  - *Is all the jargon defined?*
  - *Do the experiments support the conclusions?*
- If English is your second language ask a native speaker to check for grammar and clarity

Write a good cover letter

What to include:

1. Why you think the paper is a good fit for this journal
2. Additional background that does not fit in the abstract
3. Why you think the question you set out to address is important and/or why is what you found so exciting
4. Is there a controversy we should know about?
5. Is there competition we should know about?
6. Reviewer suggestions/exclusions

What not to include:

1. The abstract
2. A list of past accomplishments from your lab
3. The meetings you've presented this work at and the nice feedback you got

Manuscript preparation

Important so Editors and Reviewers can understand the work

Refer to the journal's Guide for Authors for specifications

Work has short sentences, correct tenses, and proper grammar

Have a native English speaker check your manuscript or use a language editing service

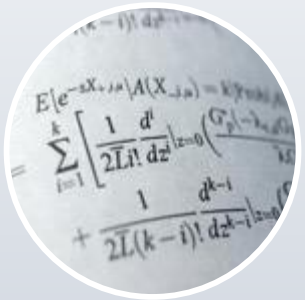
Am I using proper manuscript language?

Use an effective title

Succinct

Describes key content

Main point is clear



Avoids obscure abbreviations

An effective manuscript title

Write a clear abstract

Interesting and understandable

Accurate and specific

Brief and to the point

Introduction

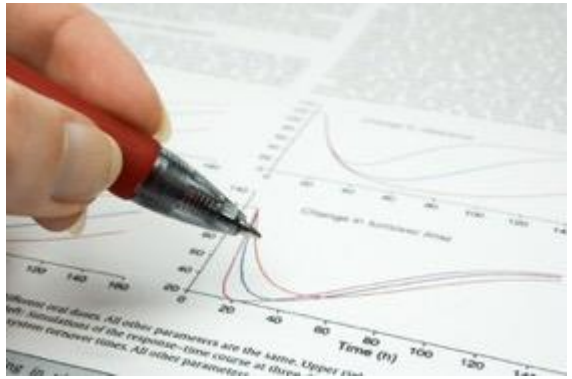
Where does the field stand?

What problem are you addressing?

Identify the solutions & limitations

An effective Results section

- Be clear and easy to understand
- Use paragraph headings that describe concrete findings
- Use similar headings for figure legend titles as for paragraphs
- Feature unexpected findings
- Provide statistical analysis
- High quality illustrations & figures



Data preparation

- Make use of color/shapes etc. in figures to highlight appropriate data
- Graphs:
    - should not appear crowded, try to present at most 3-4 datasets per graph
    - use well-selected scales and label the axes clearly
- Use different symbols to discriminate between data sets
- Figure legend:
    - should be brief
    - yet should contain sufficient explanatory details to explain the figure without the need to refer to the main text
- Always guide readers to specific parts of figures in the main text

Tie it together in the Discussion

What do the results mean?

Make the discussion correspond to the results

Compare published results with your own

References

Cite the main scientific publications on which your work is based

- Do not use too many references
- Always ensure you have fully absorbed material you are referencing
- Avoid excessive self-citations
- Avoid excessive citations of publications from the same region
- Conform strictly to the style given in the guide for authors

Acknowledgments

Ensures those who helped in the research are recognised

Advisors and Undergrad. Support

Financial Supporters and Funding Bodies

Proofreaders

Suppliers who may have donated materials

Acknowledgments

The editorial process

The manuscript journey

The Editor’s role

- Once handling editor assigned – reads paper and discusses with editorial colleagues
- Assesses importance of question, advance over published literature
- Decides whether or not to review paper for journal
- Manages review process
- Promotion of work at publication

Outcome of initial editorial evaluation

Return the manuscript to the authors

- with an explanation of why the editors feel it is not likely to be a strong candidate for publication

Send the paper out for review

- the editors identify appropriate reviewers, taking into consideration authors' suggestions and exclusions

What we ask reviewers to evaluate

- Technical quality of the data
- Degree to which data support conclusions
- Feedback on level of interest
    - To those working in the field
    - To those working outside the field
- Each reviewer assesses the paper from a different standpoint
- We honor reviewer exclusions

An aside – responsibilities of a reviewer

- When to recuse yourself – how close is too close?
  - Have you published papers together?
  - Are/were you at the same institution?
  - Do you have a grant together?
  - Is a trainee on the paper now in your lab?
- Confidentiality
- Training and sharing in the lab
- Inviting a colleague to help? – ask editor first
- Be constructive – including tone
- Be timely – if you can't do it fast, say no or notify editor
- Commit to re-review of revised paper

The editorial decision

- Editor integrates all aspects of the paper
  - Reviewers' comments
  - Editor's own assessment of paper
  - Nature of anticipated revisions
  - Editorial team feedback
  - Can go back to reviewers or additional expert for further feedback
- Balance technical issues with conceptual interest
- Consider whether additional experiments are feasible/reasonable
- Not simple yes/no tally

Rendering a decision

How close is the present state of the manuscript to the standard of the journal?

- Accept the manuscript or accept pending minor revisions
- Encourage authors to respond to concerns, and carefully outline what would be needed from a revised version
- Do not encourage authors to respond to concerns, providing reasons why revision would likely not be productive

Upon receiving an invitation to revise

- Read letter carefully and decide whether any suggested experiments can be completed within the timeframe indicated
- If not, consider whether there are different experiments or analyses that could be completed and are aimed at the same question
- Discuss with the editor any concerns on the revision prior to resubmission

Revisions, resubmissions and transfers

Revisions

Make your revision count!

Contact editors with questions

Resubmission

Include detailed point-by-point letter addressing reviewers' critiques; may be subject to re-review by all/subset of reviewers

Transfers

Requested by authors: contact editors of second journal to transfer file, including reviews

Upon receiving a negative decision

Read letter carefully and assess the basis for the decision

If decision is unclear, contact editor for clarifications/guidance: dialogue is encouraged

Consider transferring to another Cell Press journal

If you appeal the decision:

- Provide point-by-point response to reviewers' concerns
- Stick to the scientific issues
- Indicate how issues could be addressed experimentally
- Be reasonable in assessing the situation
- Editors may return to reviewers for guidance
- Editors may enlist new experts for advice

Transfer process

Goal: to help you find a place to publish your paper within Cell Press as quickly and smoothly as possible

- Entirely author-driven process
- Can take place whether or not paper was sent out for peer review at the initial journal
- If the paper is transferred after peer review at the original journal, the reviews and reviewer identities are transferred with the paper
- Authors can revise the paper before transfer to next journal
- Contact editors at next journal with any queries

After acceptance

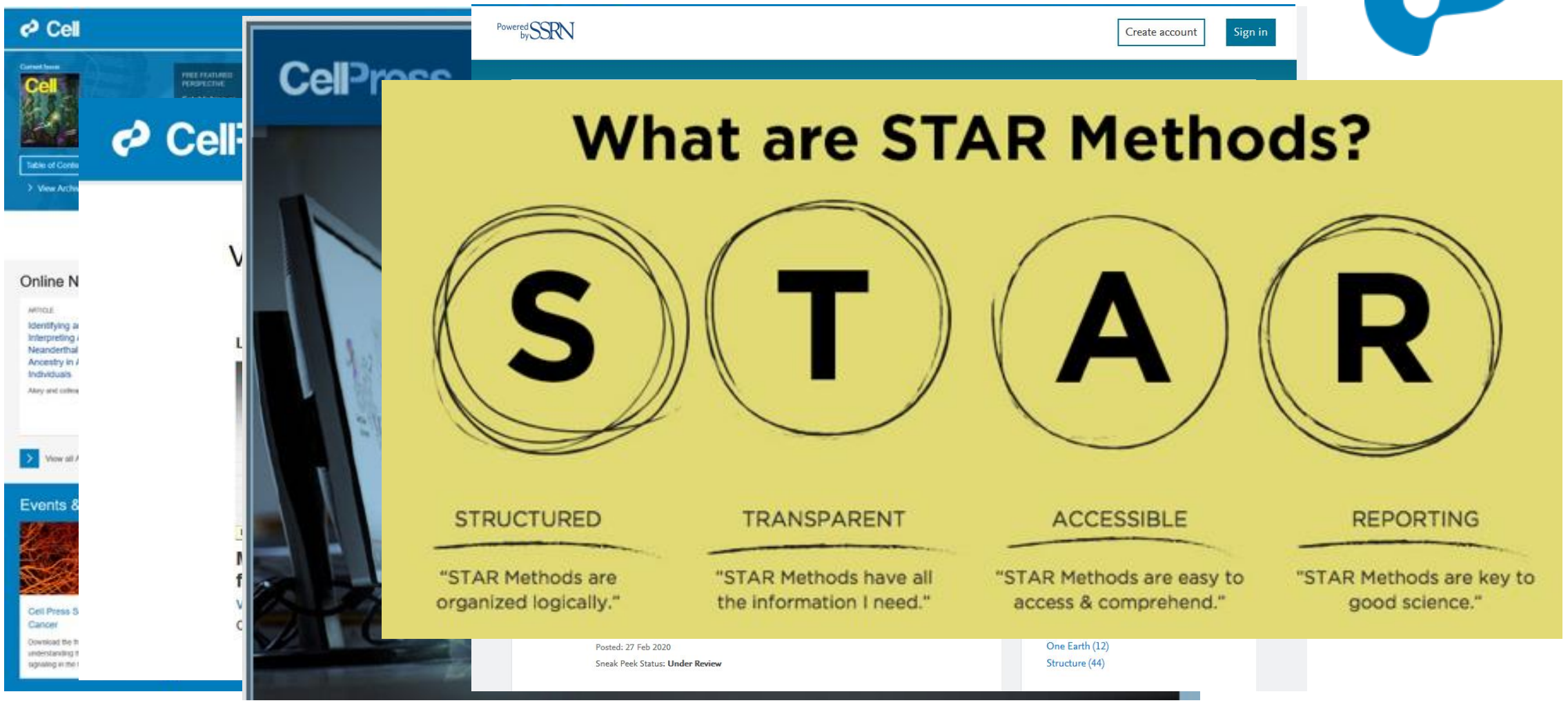
Authors and editors celebrate!!!

But the work isn't quite finished…

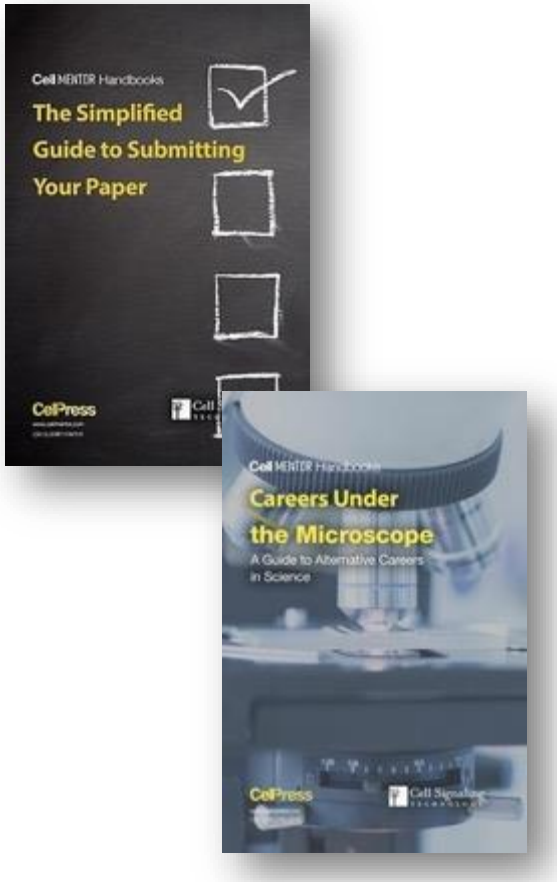
- Organize final files according to instructions and final resubmission checklist
- Copy-editing and page layout
- Online and issue publication
- Article promotion through Preview articles, author audio or video interviews, press releases, website, and social media

Innovation and community building

Innovating in content delivery



Cell Mentor



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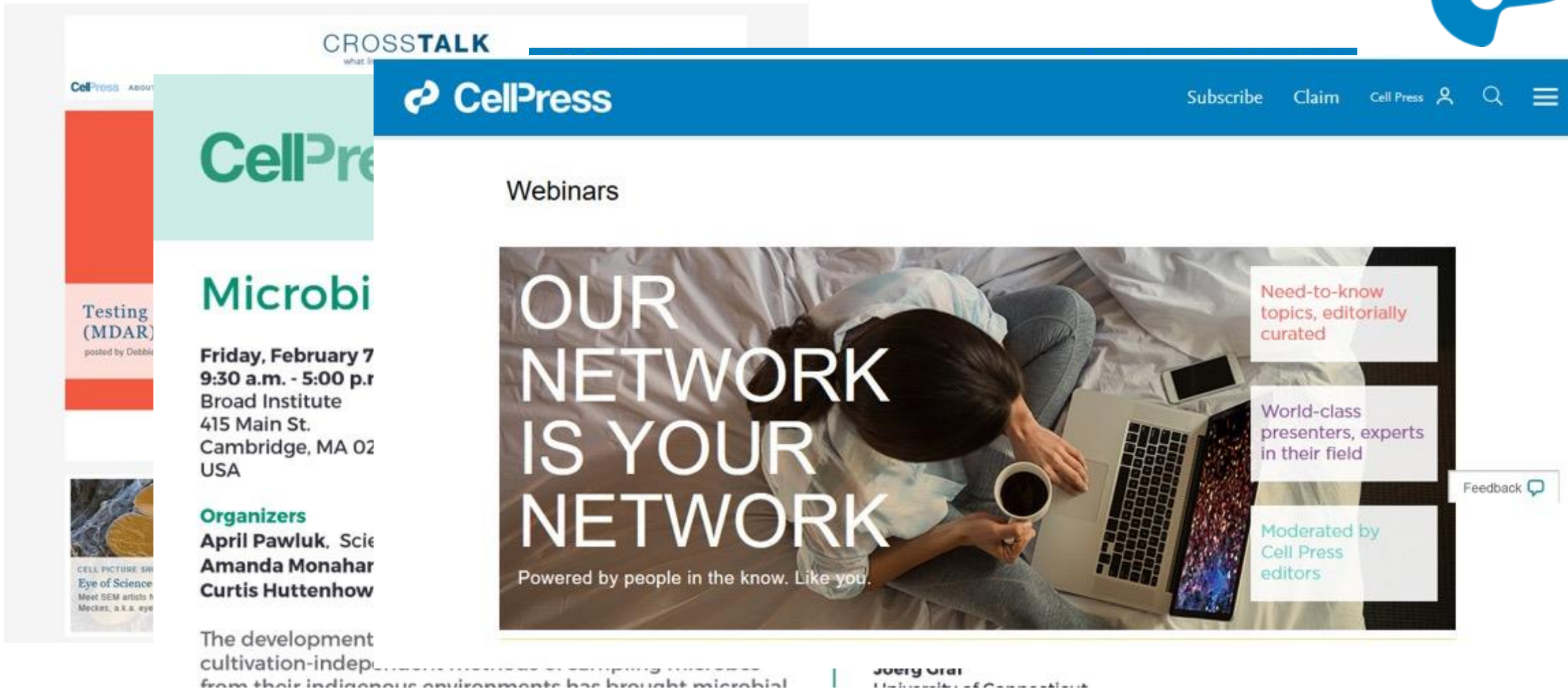
- advice from editors on what to do and how to do it when you're ready to publish your work
- insights from working scientists in our network
- tips from career experts
- video tutorials on experimental procedures, protocols, and methods

Encouraging dialog and connections

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