

Korean Association of Medical Journal Editors (KAMJE)  
Seoul, South Korea | January, 2018

## New Content Formats - Communicating Science Effectively Beyond the Journal Article



**Presented by:**

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Editage / Cactus Communications

Helping You Get Closer to Your Authors  
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by CACTUS

# **A Brief History-the Journey of Scientific Communication**

# A Tale of Two Parallel Tracks of Landscape Progress (1 of 2)

## The Journey of the Journal and Research Article (abbreviated)

In the 1970s-1990s the research paper was comparably in the “dark ages” compared to models of publication today.

- Admittedly, the business model of publishing was also very different than it is today
  - Primarily print
  - Heavy emphasis on subscription models, page charges, advertising and reprint sales

Then came the Internet and electronification of journals, which changed everything!

Discussions focused on the *Article of the Future*

- A movement toward a multi-dimensional article online
  - Layout, design, platform responsiveness, supplemental material
  - Interactive content, annotation capabilities
- Integration of video and other forms of media/enriched content

# A Tale of Two Parallel Tracks of Landscape Progress (2 of 2)

## The Journey of the Researcher (abbreviated)

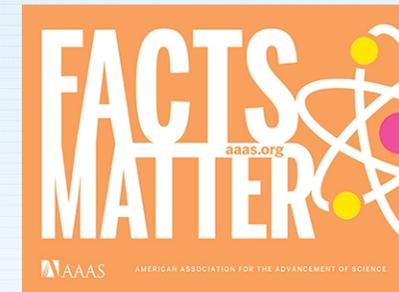
A focus on innovative research has always been the cornerstone of academic success.

Connectedness of researchers, like never before

- Researcher interaction/collaboration networks (SINs, ResearchGate, Academia.edu, etc.)
- Article sharing
- Social media engagement

Most recent trends:

- Open access
- Open science/data
- Open engagement



# The Evolution of the Author Ecosystem

It's a Process!

## Supporting the Author Need



Preparing a manuscript



Choosing a journal



Submission & peer review



Publication



Promoting a research paper



Open access

# The Evolution of the Author Ecosystem: Understanding Complexity

## It's an Integrated Collaborative Ecosystem!

- Shared resources
- Shared relationships
- Shared responsibilities
- Shared goals

- Primary
- APC charges

Funding

Grant Writing

Research

- Research collaboration
- Electronic data notebooks
- Researcher communities
- Big data collection/preservation
- Reproducibility

Ringgold

ORCID  
CrossRef  
Colwiz

Overleaf

Editage

Altmetric Kudos

Code Ocean

Figshare Publons

Manuscript writing

- Author services providers
- Collaborative writing platforms
- Meta-data preservation
- Data submission

Publication

Peer Review

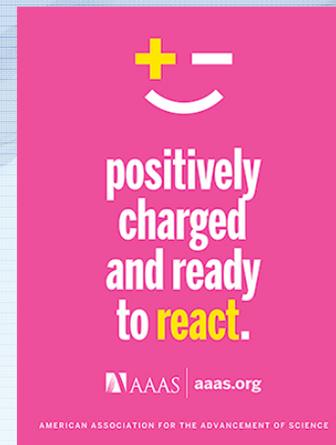
- Subscription / Open access
- Repository /archive
- Article summaries
- Big data publication
- Discoverability
- Preservation

- Peer review structure
- Peer reviewer training
- Peer reviewer recognition
- Publication of peer reviews

# The Pressures of Open Access/ Open Science / Open Engagement

## Open Access -> Open Science -> Open Engagement

- Mandates/calls for Open Access
  - government and funding bodies + research community + public
- Mandates/calls for Open Science/Data
  - by government and funding bodies + research community
- Increasing calls for Open Engagement
  - by academic societies + non-profit organizations + academic institutions



# What Does Open Engagement Mean?

The call for Open Engagement is the movement to encourage faculty to communicate their research findings not only to their close peers, but to extend their circles of influence to include **peers outside of their discipline** (non-traditional peers, including corporate professionals), the **public at large**, and **policy-makers** (at the federal, state, and local levels, including school boards)

- Peers / non-traditional peers
- Public
- Policy-makers

*“The three Ps” (3Ps)*



# The Merging of Open Engagement Goals

## The Need of the Publisher / Society / Journal

- Attract high-quality research articles
- Attract a diverse population of peer reviewers
- Build relationships with authors
- Create an ecosystem of engagement
- Differentiate oneself on the landscape
- Drive readership, downloads, citation
- Build corporate brand/awareness
  
- Bring stopping power to the article
- Leverage social media strategies
- Build global outreach strategies

## The Need of the Researcher / Academic Institution

- Publish high-quality research articles
- Participate in peer review activities
- Build international relationships
- Contribute to scholarly discussion
- Differentiate oneself on the landscape
- Become highly cited
- Build personal/corporate brand
  
- Ensure strategic article placement
- Develop communication strategies
- Ensure global reach

## The Merging of Minds

---

*While these movements are under foot, it does not mean that all researchers are comfortable with expanding their communication habits beyond academic conversations at conference venues and in the form of journal publications or opinion pieces.*

**This is where the synergies start to emerge between stakeholder efforts**

- The publisher's need to develop stopping power to the research article
- The researcher's need of material to fuel their outreach/engagement efforts
- The university's need to have material at hand to promote the activities of the institution

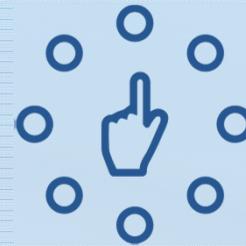
*This leads to the need to share science in newer content formats beyond the research manuscript*

# The New Content Format Movement at a Glance

# New content formats bring new possibilities



Better  
reader response



Touch points with  
more audience segments



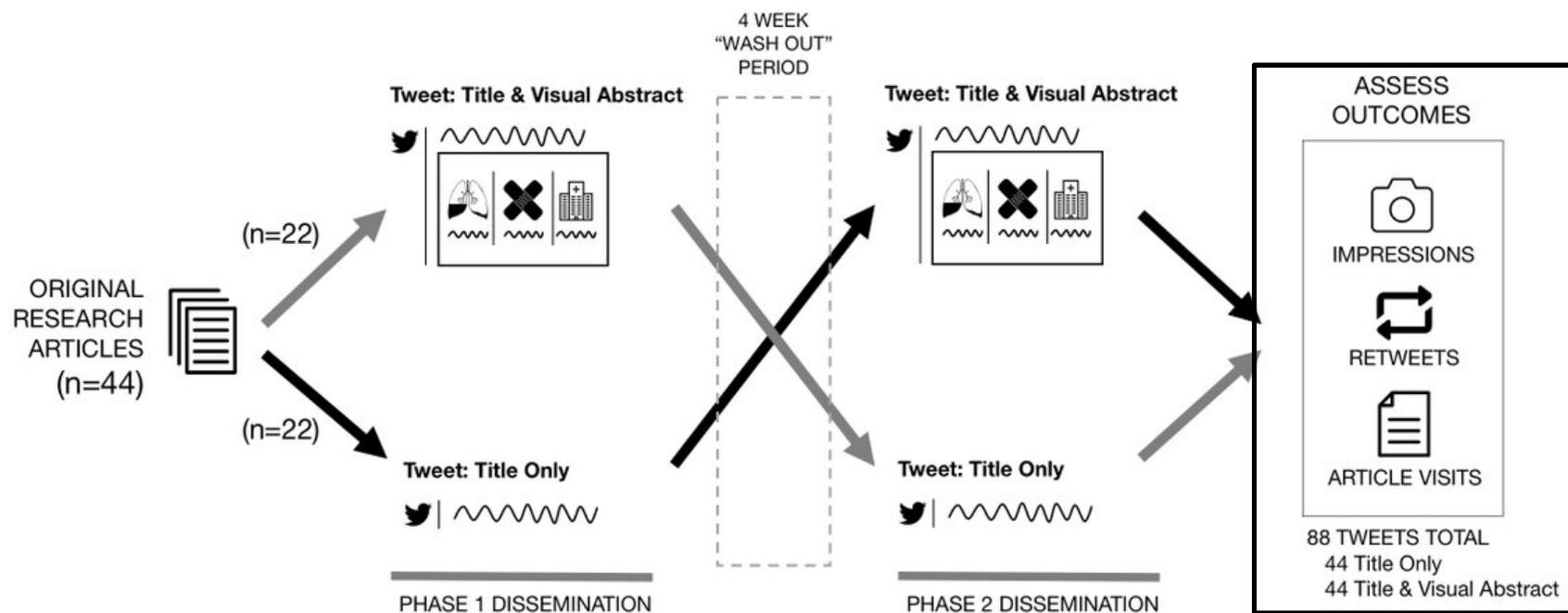
Promotion of  
important research



Standing out  
from competition

# Who is saying this?

**Figure 1. Study Design.** Prospective, Case-Control Crossover Study to Evaluate the Impact of Visual Abstracts on Twitter



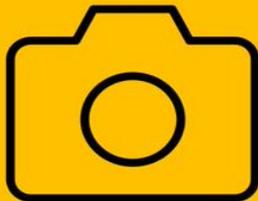
Study conducted between July 2016 and December 2016 using articles published the same year. All articles in this study were tweeted from the Annals of Surgery account (Twitter: @AnnalsOfSurgery). Outcomes data were aggregated from Twitter Analytics and compared using matched-pair t-test analysis.

**Articles with a visual abstract got read nearly three times more than those that did not!**

# And if that doesn't convince you, this might...

## Visual Abstracts Increase Article Dissemination: a prospective, case-control crossover study

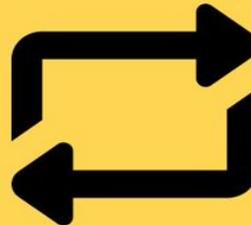
IMPRESSIONS  
x7.7 fold



3k → 23k

( No. of times a Tweet was seen )

RETWEETS  
x8.4 fold



11 → 92

( No. of times a Tweet was shared )

ARTICLE VISITS  
x2.7 fold



65 → 175

( No. of Article Visits via link click )

Ibrahim et al. *Ann Surg.* April 2017.

ANNALS OF **SURGERY**  
A Monthly Review of Surgical Science Since 1885

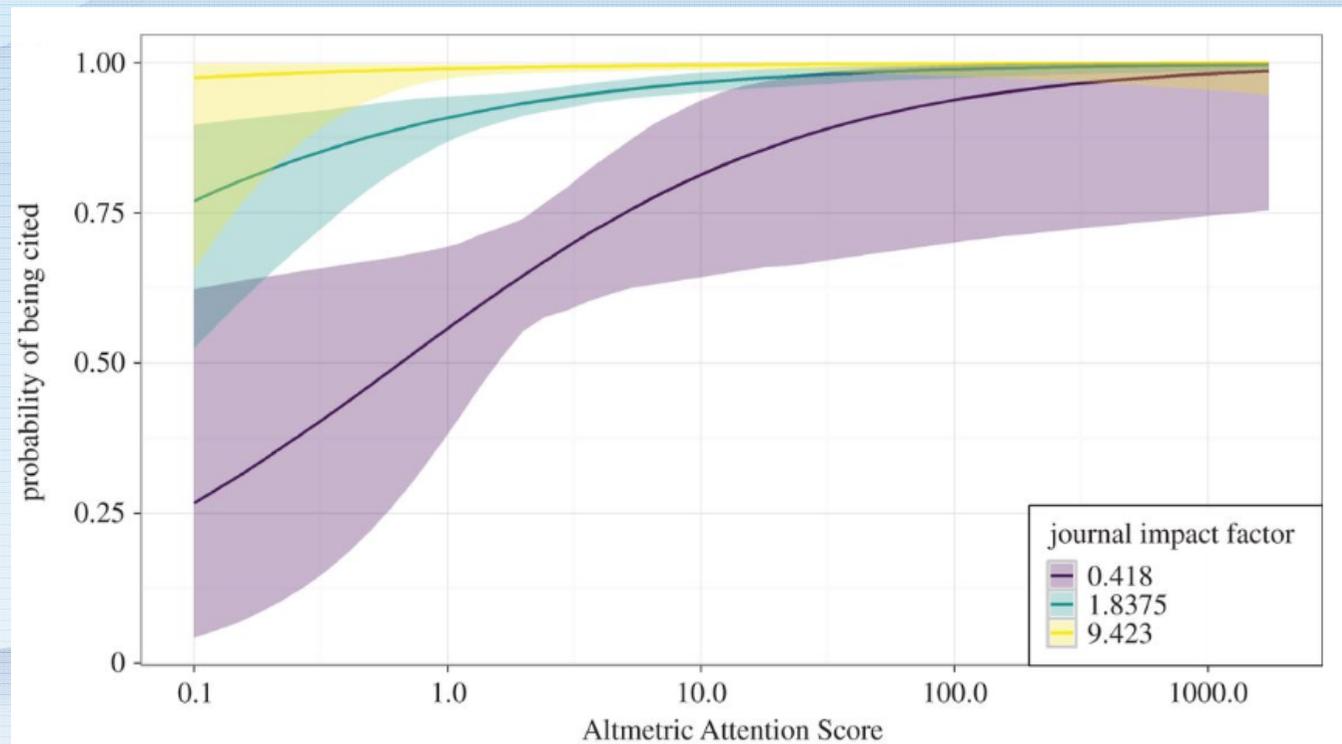
Copyright © 2017 Wolters Kluwer Health, Inc. All rights reserved. Published by Lippincott Williams & Wilkins, Inc.

# Enriched Content Provides “Stopping Power”

- Articles receiving higher online attention tended to be cited more, but this effect was weaker for articles in higher impact factor journals which tended to be highly cited regardless of online activity.

**Tweeting birds: online mentions predict future citations in ornithology**  
Tom Finch, Nina O'Hanlon,  
Steve P. Dudley

Published 1 November 2017.  
DOI: 10.1098/rsos.171371

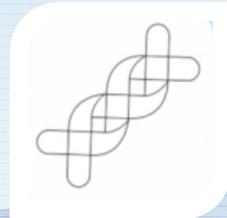


# Let's go beyond the *traditional* journal article

## UNTIL NOW research has been...

Available in traditional formats that include:

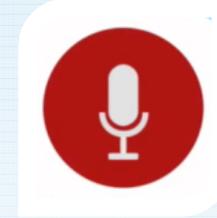
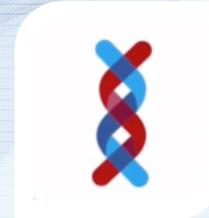
- **Jargon-heavy/specialized vocabulary**
  - **Text** + figures & tables
- **Occasional supporting material**



## FROM NOW ON research could ALSO be...

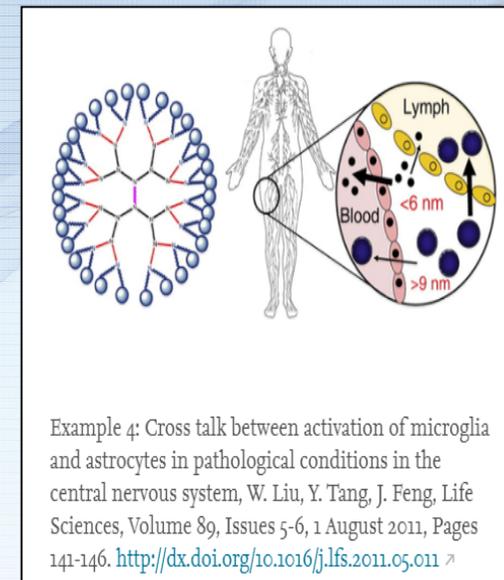
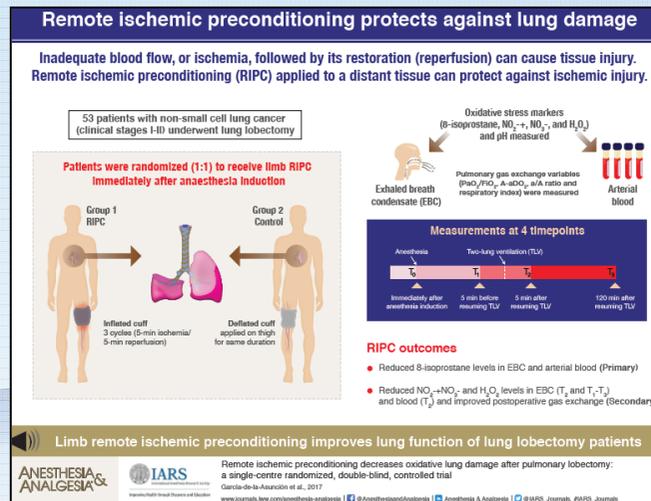
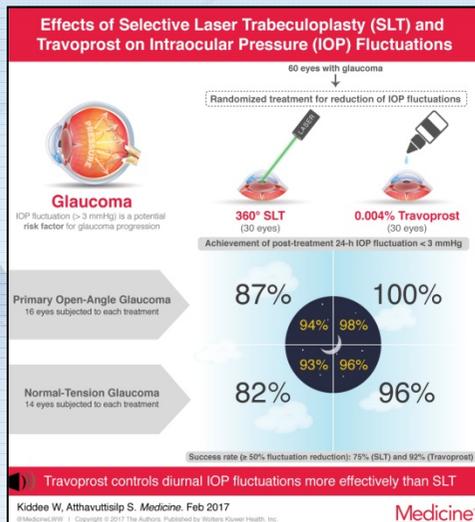
Available in **enhanced formats** such as

- **Video (audio-visual)**
  - **Graphical**
  - **Audio**
  - **Text**



# 1. Visual summaries

- Presents key results in a snapshot, providing an **at-a-glance summary**
- Minimum time burden and **high recall value**
- Can be re-used as **presentations**
- Variants: **infographics, graphical abstracts, visual abstracts**



## 2. Video summaries

- Brings your research to life with **audio, graphics, and animation**
- High **outreach potential** because of engaging format
- Especially helpful for a **show-and-tell** approach
- Variants: **video summaries, figure explainers, talking head videos**

The screenshot displays a video player interface. On the left, a video thumbnail shows a surgical site with the text 'Morbidity', 'Healthcare cost', and 'Death'. The main video player area shows a diagram of RN7SL1 Endogenous RNA. The diagram includes a 5'ppp structure, an RN7SL1 (Unshielded) molecule, and an eye icon. Text in the diagram states: 'RN7SL1 Endogenous RNA', 'Unshielded forms promote tumor progression', and 'Damage-Associated Molecular Patterns'. The video player interface includes a title bar with the text 'Risk Factors for Prolonged Opioid Use Following Spine Surgery, and the Association with Surgical Intensity, Among Opioid-Naïve Patients', a video player with a progress bar at 0:01 / 2:46, and a logo for JB&JS. The video player also shows the authors: Andrew J. Schoenfeld, Kenneth Nwosu, Wei Jiang, Allan L. Yau, Muhammad Ali Chaudhary, Rebecca E. Scully, Tracey Koehimcos, James D. Kang, and Adil H. Haider. The video player also shows the journal name: The Journal of Bone & Joint Surgery and the DOI: 10.2106/JBJS.16.01075. The video player also shows the logo for CelPress.

# 3. Audio summaries

- Portable content that helps listeners learn **on-the-go**
- Build a **community of listeners**
- Share opinions and **commentary** on a critical topic
- Variants: **podcasts, audio slides, interviews**



The image shows a collage of three web pages related to audio content. On the left is the JBJS Podcast page, featuring the logo 'JB&JS THE JOURNAL OF BONE & JOINT SURGERY' and a navigation menu with 'Current Issue', 'Archive', 'Specialty', and 'Podcast Series'. The main text describes the monthly podcast and provides a link to 'Access the Feed Now'. In the center is the Nature Podcast page, with a red header and a white body. It includes download and subscribe buttons, an embed code, and a 'play full podcast' button. On the right is a graphic with a microphone and the word 'Medicine'.

## 4. Lay summaries

- Alternative abstracts accessible to a more **general audience**
- Style more tailored for coverage on **mainstream science media**
- Easiest medium to convey research impact
- Variants: **plain-language summaries, blog posts, news stories, press releases**

The image displays three examples of lay summaries:

- Journal Article Abstract:** Titled "Functional Ecology", it discusses the food preferences of predators and their influence on prey species. The authors are Yasuhiro Sato, Koichi Ito, and Hiroshi Kudoh. The abstract describes a study on the brassica leaf beetle (*Phaedon brassicae*) and the common wild perennial herb (*Arabidopsis halleri*) in Japan, highlighting the role of predator choice in maintaining ecological balance.
- PLOS Research News Article:** Titled "News Summaries", it features a "Research Roundup" with three items:
  - "Research Roundup: Flu pandemics may be more likely in spring and early summer; Many female jumping spiders only mate once in their lifetimes"
  - "Delicious Holothuroid; Disgusting Habit: The genes behind the sea cucumber's auto-evisceration defense"
  - "Mesolithic d..."
- Wiley Press Release:** Dated October 23, 2017, titled "Advanced Cancer Patients' Physical and Emotional Burdens Linked to Lengthy Hospital Stays, Readmissions". The release states that new research indicates hospitalized patients with advanced cancer experience many physical and psychological symptoms, and that patients with a higher burden of these symptoms have longer hospital stays and a greater risk for unplanned hospital readmissions.

# A look at journals/publishers leading this change

# THE JOURNAL OF BONE AND JOINT SURGERY (JBJS) - Wolters Kluwer (1/6)

### Teaching Patients How to Reduce a Shoulder Dislocation



Acute Anterior Shoulder Dislocation

80 emergency department patients ages 18-80  
Dislocation and reduction were confirmed on radiograph



Randomization



Spaso technique (n=30)



Boss-Holzach-Matter (BHM) Technique (n=30)

The self-administered BHM technique was:

- Less painful**  
Lower overall and peak pain
- Just as fast**  
No significant difference in reduction time
- Just as effective**  
No significant difference in success rate

Thanks to its simplicity, the BHM self-administered technique can be used as a first-line technique in the emergency department for reducing shoulder dislocations.

Most reduction protocols for acute anterior shoulder dislocations are:

Resource Intensive	Inconvenient
Physician-dependency	Cost
Sedation	Pain
Monitoring	Wait time

Teaching Patients How to Reduce a Shoulder Dislocation  
Marcano-Fernández et al. (2018) DOI: 10.2106/JBJS.17.00687

www.jbjs.org | theJBJS | @JBJS JB&JS

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### Plate Versus Tension Band Wire Fixation for Olecranon Fractures

Royal Infirmary of Edinburgh





TBW fixation



Plate fixation

Validated patient-reported outcome

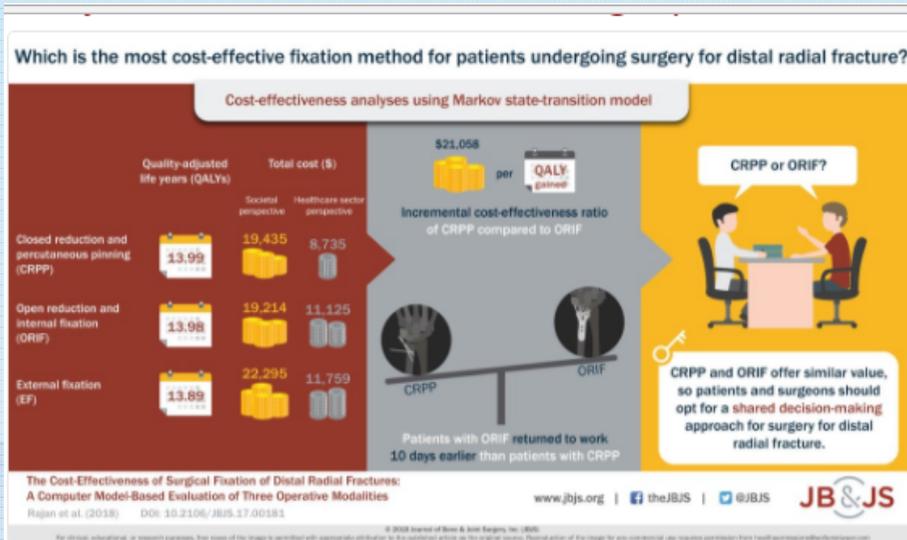


JB&JS

ed/tage  
by CACTUS

# The Journal of Bone and Joint Surgery (2/6)

## Mobile-optimized and social-media-driven digital content for engaged society community



10:30 AM - 9 Feb 2018

13 Retweets 21 Likes

Randomized Trial Comparing Suture Buttons with Single Syndesmotic Screw for Syndesmosis Injury

1,522 views

11 likes 0 dislikes

JBJSmedia

SUBSCRIBE 1.2K

### Immediate engagement

**Mark Webb** @chesterbonedoc · Feb 10

Replying to @jbjs

What a great summary of this paper. 👍 for infographics

**CellPress** Search All Content Advanced Search

Explore

### Figure 360: Videos Embedded in Figures

Figure 360

We know how difficult it can be to stay informed about the latest literature, especially outside of one's field. In response, we are piloting a new feature: embedded videos to help the reader quickly grasp the major points of a single figure. Each of the examples below is a PDF of a recent paper with a video embedded in one of its figures. The authors of these papers have provided the videos, and we want to hear what you think about this feature.

A technical note: each link below will open the full PDF of a recent paper containing one figure with an embedded video. Simply navigate to the figure and click the "Figure 360" button above it. If you open the PDF file with Adobe Acrobat, then the Figure 360 video will play inside the PDF; if you open the PDF file with another PDF viewer, the video should open in a web browser. Don't hesitate to contact us with any questions.

### Figure360 Examples

**Figure 4**  
Mittler, R. (2017). ROS Are Good. *Trends Plant Sci.* 22, 11–19.

**Figure 1**  
Yang, C. (2017). 4.0 V Aqueous Li-Ion Batteries. *Joule* 1, 122–132.

**Figure 5**  
Denny, S.K., et al. (2016). Nfb Promotes Metastasis through a Widespread Increase in Chromatin Assembly. *Cell* 166, 328–342.

**Figure 7**

**Figure 1**

**Figure 1**

- ER
- plasma membrane
- mitochondrion
- endosome
- lysosome
- peroxisome
- Golgi (cis/medial/trans)
- autophagosome
- leaf druselet
- inclusion body

<https://www.cell.com/innovations/author-insights>





# A look at journals/publishers leading this change (5/6)

## NEUROLOGY

### Short-form articles in the print version

**SHORT-FORM ARTICLE**

### The 11-year long-term follow-up study from the randomized BENEFIT CIS trial

**OPEN** ▲

Ludwig Kappos, MD  
Gilles Edan, MD  
Mark S. Freedman, MD  
Xavier Montalban, MD  
Hans-Peter Hartung, MD  
Bernhard Hemmer, MD  
Edward J. Fox, MD  
Frederik Barkhof, MD  
Sven Schippling, MD  
Andrea Schulze, MS  
Dirk Pleimes, MD  
Christoph Pohl, MD  
Rupert Sandbrink, MD  
Gustavo Suarez, MD  
Eva-Maria Wicklein, MD  
For the BENEFIT Study Group  
Ludwig.Kappos@usb.ch  
Neurology® 2016;87:964

This article appears in full in this issue on page 978 and online at [Neurology.org](http://Neurology.org).

**Study question:** In patients diagnosed with clinically isolated syndrome (CIS), does immediate treatment with interferon beta-1b reduce the long-term risk of conversion to clinically definite multiple sclerosis (CDMS) compared to delayed treatment?

**Summary answer:** After 11 years, risk of conversion to CDMS remained lower in those receiving immediate treatment.

**What is known and what this paper adds:** The results of the study support initiating treatment of CIS before conversion to CDMS, and provide Class IV evidence that such treatment may provide benefits over the long term compared to a delay in starting treatment.

**Design:** As part of the phase 3, international, multicenter BENEFIT trial, patients with a CIS and 2 or more clinically silent MRI lesions were randomized (5:3) to 250 µg interferon beta-1b (early treatment group) or placebo (delayed treatment group) every other day for 2 years or until conversion to CDMS, after which patients receiving placebo could switch to interferon beta-1b. Results from a prospective, comprehensive follow-up at 11 years (BENEFIT-11) are reported here.

**Participants and setting:** Of the 468 patients in BENEFIT, 278 enrolled in BENEFIT-11, including 167 originally assigned to active treatment.

**Kaplan-Meier estimates of probability of CDMS-Annualized Relapse Rate**

was associated with a longer time to first relapse (median [Q1, Q3] days: 1,888 [540, not reached] vs 931 [253, 3296];  $p = 0.0005$ ), and lower overall annualized relapse rate (0.21 vs 0.26;  $p = 0.0018$ ). The Kaplan-Meier estimate of 50% probability of CDMS indicated an average delay of conversion of 2.7 years for early vs delayed treatment (figure).

**Harms:** The reported adverse events were consistent with the known profile of interferon beta-1b, with no serious adverse effect during BENEFIT 11. No new safety signals were detected at year 11.

**Bias, confounding, and other reasons for caution:** Some patients from the original trial were unavailable for follow-up. However, the follow-up study included a large proportion of

### Short-Form Articles

Neurology

The Future of Print

- New short format applies to Articles only; other categories remain full-length
- Enables longer article submissions with the full length manuscript appearing online
- The print version is now be more digestible; Read more in less time
- The short-form articles include what is known; generalizability; main results; confounding factors; and generalizability

Neurology®

Short-form articles and podcasts part of ToC

# Neurology (6/6)

Short-form articles designed as future-facing and cost-effective print product to engage core readership

## The new *Neurology*

Redesigns, short articles for print, full articles online, and data availability policies

Patricia K. Baskin and Robert A. Gross

First published October 25, 2017, DOI: <https://doi.org/10.1212/WNL.0000000000004641>

[PDF](#) [CITATION](#) [PERMISSIONS](#) [COMMENT](#) [Check for updates](#) [Am score](#) 8 [Download](#)

Article Info

Readers will note sweeping changes in *Neurology*<sup>®</sup> as of the January 2, 2018, issue, changes that were carefully considered as the Editors reimagined the journal in the context of changes in scientific publishing in general, and supported by extensive research in readers' habits and preferences. The most notable changes occur both in print and online, for which there are new designs, the result of 2 years' work and crafting. For print, we are publishing articles in a short format, allowing a more comprehensive reading experience in a shorter time. For the online, canonical version of the journal, we are now able to accommodate longer full articles. Along with

**Comprehensive reading experience in shorter time**

# Success stories based on impact

# JBJS: posts with infographics/ videos perform 4-10X better (1/5)

POST	TIME	CLICKS	INTERACTIONS
 <p>Determination of alpha defensin in synovial fluid has shown promising results for diagnosing periprosthetic joint infection (PJI). <a href="https://hubs.ly/H0bZZNM0">https://hubs.ly/H0bZZNM0</a> #JBJSInfographics #JBJS            Campaign: Infographics and video summaries            Link: <a href="https://jbjs.org/reader.php?source=The_Journal_of_Bone_and_Joint_Surger...">https://jbjs.org/reader.php?source=The_Journal_of_Bone_and_Joint_Surger...</a></p>	 <p>May 8, 2018 7:00 am</p>	20	8
 <p>Determination of alpha defensin in synovial fluid has shown promising results for diagnosing periprosthetic joint infection (PJI). <a href="https://hubs.ly/H0bZZKZ0">https://hubs.ly/H0bZZKZ0</a> #JBJSInfographics #JBJS            Campaign: Infographics and video summaries            Link: <a href="https://jbjs.org/reader.php?source=The_Journal_of_Bone_and_Joint_Surger...">https://jbjs.org/reader.php?source=The_Journal_of_Bone_and_Joint_Surger...</a></p>	 <p>May 8, 2018 7:00 am</p>	13	16
 <p>Occasionally, patients experience new or increased ankle pain following total knee arthroplasty (TKA). <a href="https://hubs.ly/H0bZX1X0">https://hubs.ly/H0bZX1X0</a> #JBJSInfographics #JBJS            Campaign: Infographics and video summaries            Link: <a href="https://jbjs.org/reader.php?source=The_Journal_of_Bone_and_Joint_Surger...">https://jbjs.org/reader.php?source=The_Journal_of_Bone_and_Joint_Surger...</a></p>	 <p>May 7, 2018 1:00 pm</p>	97	41
 <p>Occasionally, patients experience new or increased ankle pain following total knee arthroplasty (TKA). <a href="https://hubs.ly/H0bZYd10">https://hubs.ly/H0bZYd10</a> #JBJSInfographics #JBJS            Campaign: Infographics and video summaries            Link: <a href="https://jbjs.org/reader.php?source=The_Journal_of_Bone_and_Joint_Surger...">https://jbjs.org/reader.php?source=The_Journal_of_Bone_and_Joint_Surger...</a></p>	 <p>May 7, 2018 1:00 pm</p>	37	46
 <p>Occasionally, patients experience new or increased ankle pain following total knee arthroplasty (TKA). #JBJS #JBJSVideoSummaries            Campaign: Infographics and video summaries            Link: <a href="https://www.youtube.com/watch?v=PWBQo4JVJLM&amp;t=">https://www.youtube.com/watch?v=PWBQo4JVJLM&amp;t=</a></p>	 <p>Link preview</p> <p>May 3, 2018 12:00 pm</p>	107	21
 <p>Occasionally, patients experience new or increased ankle pain following total knee arthroplasty (TKA). #JBJS #JBJSVideoSummaries            Campaign: Infographics and video summaries            Link: <a href="https://www.youtube.com/watch?v=PWBQo4JVJLM#utm_source=facebook...">https://www.youtube.com/watch?v=PWBQo4JVJLM#utm_source=facebook...</a></p>	 <p>Link preview</p> <p>May 2, 2018 4:00 pm</p>	11	3
 <p>Occasionally, patients experience new or increased ankle pain following total knee arthroplasty (TKA). <a href="https://hubs.ly/H0bWKzf0">https://hubs.ly/H0bWKzf0</a> #JBJS #JBJSVideoSummaries            Campaign: Infographics and video summaries</p>	 <p>Link preview</p> <p>May 2, 2018 4:00 pm</p>	24	8

## Cell Press: positive author feedback (2 of 5)

- Key Metric: Do users perceive a high level of value in F360 videos?
  - Does a F360 help users to better understand the data or content of a figure?
    - Yes: 66 percent
  - Does a F360 help users to more quickly comprehend a figure?
    - Yes: 63 percent
- *Prose Award!*



IDEATION | PRODUCT DEV | IMPLEMENTATION

CellPress

# ALM: citation evidence (3 of 5)

### Annals of Laboratory Medicine: 9 times more citations than average for articles with video summaries



**ALM** Calreticulin Exon 9 Mutations in Myeloproliferative Neoplasms

Ann Lab Med. 2015 Jan;35(1):22-27. English.  
Published online December 08, 2014. <https://doi.org/10.3343/alm.2015.35.1.22>

© The Korean Society for Laboratory Medicine.

#### Calreticulin Exon 9 Mutations in Myeloproliferative Neoplasms

Jung-Sook Ha , M.D.,  and Yu-Kyung Kim, M.D.<sup>2</sup>

<sup>1</sup>Department of Laboratory Medicine, Keimyung University School of Medicine, Daegu, Korea.

<sup>2</sup>Department of Laboratory Medicine, Yeungnam University College of Medicine, Daegu, Korea.

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Received May 20, 2014; Revised July 07, 2014; Accepted November 11, 2014.

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- ▶ This article has been cited by **17** articles in  
- ▶ This article has been cited by **3** articles in KoMCI.
- ▶ This article has been cited by **Google Scholar**.
- ▶ This article has been cited by **6** articles in PubMed Central.



**ALM** Rates of Fecal Transmission of Extended-Spectrum  $\beta$ -Lactamase-Producing and C...

#### Rates of Fecal Transmission of Extended-Spectrum $\beta$ -Lactamase-Producing and Carbapenem-Resistant *Enterobacteriaceae* Among Patients in Intensive Care Units in Korea

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# Frontiers (4/5)

Product innovations (visual press release) for pickup and dissemination by mainstream media and PR portals

PUBLIC RELEASE: 20-MAR-2018

## Researchers create new low-cost, sustainable material for reducing air and water pollution

*A new 'green' material made from solid wastes and natural polymers promises better results than activated carbon in adsorbing pollutants in wastewater and air*

FRONTIERS



PRINT EMAIL

A new class of low-cost and sustainable hybrid materials could possibly displace activated carbon as the preferred choice for reducing wastewater and air pollution. The material, described in *Frontiers in Chemistry*, is synthesized inexpensively from solid wastes and a naturally abundant polymer -- and can cut down pollutants in air and wastewater with more success than activated carbon, the current gold standard adsorbent.

"This paper shows the simple synthesis of a new porous hybrid material, obtained by using low cost and by-product materials," says the lead author, [Dr. Elza Bontempi](#)

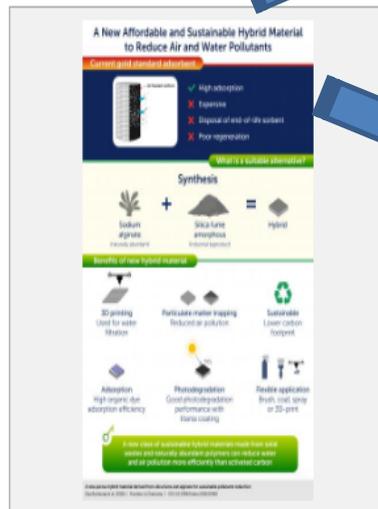


IMAGE: THIS IS AN OVERVIEW OF THE STUDY METHODS AND RESULTS, WHICH DEMONSTRATE A NEW LOW-COST, SUSTAINABLE MATERIAL FOR REDUCING AIR AND WATER POLLUTION. [view](#)



### Low-cost hybrid material created for reducing water, air pollution



Source: Xinhua 2018-03-21 00:22:08

WASHINGTON, March 20 (Xinhua) -- An Italian science team has developed a new class of low-cost materials that can reduce wastewater and air pollution better than the commonly-used activated carbon.

Follow



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Photo

from solid wastes ...



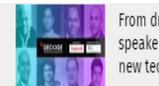
Your source for the latest research news

## Researchers create new low-cost, sustainable material for reducing air and water pollution

*'Green' material made from solid wastes and natural polymers promises better results than activated carbon in adsorbing pollutants in wastewater and air*



Sunday, May 06, 2018



Home > Technology > Science > New low-cost sustainable material created from waste can reduce air, water pollution: Study

## New low-cost sustainable material created from waste can reduce air, water pollution: Study

Researchers have developed a material, composed from natural waste material, that can help control air and water pollution.



# Studies emerging on New content formats and Engagement (5/5)



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RESEARCH ARTICLE

## Twitter Predicts Citation Rates of Ecological Research

Brandon K. Peoples  , Stephen R. Midway , Dana Sackett , Abigail Lynch , Patrick B. Cooney 

Published: November 11, 2016 • <https://doi.org/10.1371/journal.pone.0166570>

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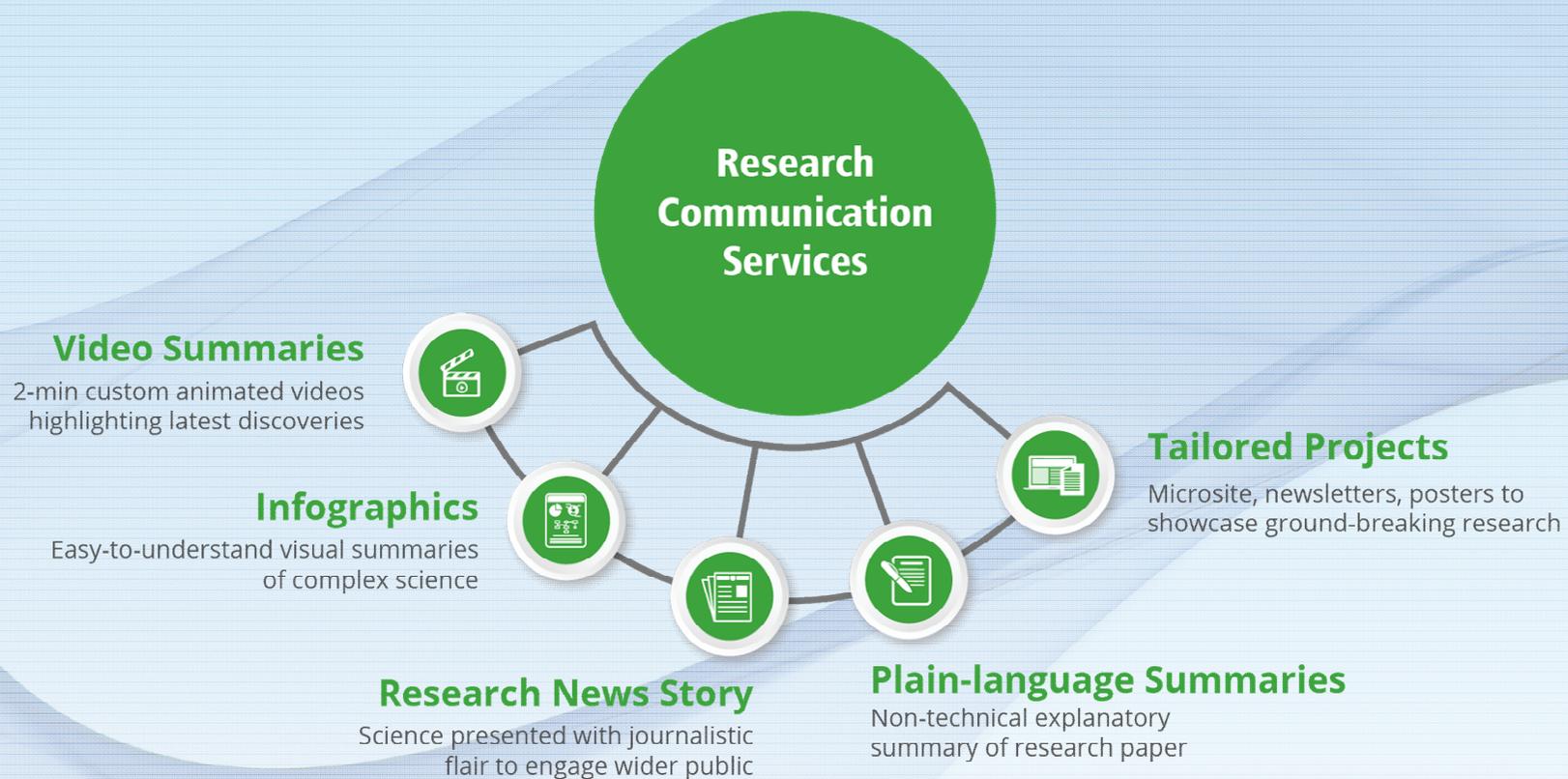
### ■ Tweeting birds: online mentions predict future citations in ornithology

Tom Finch, Nina O'Hanlon, Steve P. Dudley

Published 1 November 2017. DOI: [10.1098/rsos.171371](https://doi.org/10.1098/rsos.171371)

# Evolution of Research Communication Services

Helping journal editorial offices and authors communicate research for deeper impact



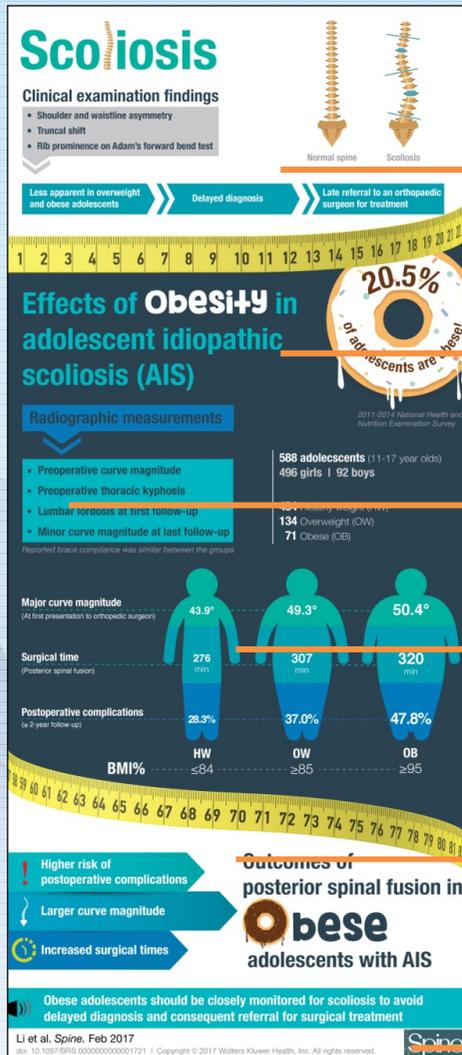
<https://www.editage.co.kr/research-communication/>

# Research Communication Services: Video Summaries



- ✓ **2-min animated video** highlighting core research findings
- ✓ professional **voiceover**
- ✓ simplified language, **high-quality graphics**
- ✓ **journal branding + DOI +** author information

# Research Communication Services: Infographics



Background

Title

Brief methodology

Visual summary of outcomes

Implications

Take-home message

Journal + Author info + DOI

- ✓ Visual summary of key concepts of research article
- ✓ Simplified language, **high-quality graphics**
- ✓ Use cases: **conference posters, flyers/brochures, annual reports**
- ✓ **Journal branding + DOI + author information**

# Research Communication Services: Research News Story

Healthcare at the front line: the study of international volunteer workers fighting EBOLA in West Africa

Survey shows a high number of near-misses among volunteers, suggesting need for standardization of protocols for management of Ebola virus exposure

Published online in PLOS Medicine in May 2017



[Credit: [iStockphoto.com](#)]

Study shows healthcare volunteers in West Africa are at risk for Ebola infection

In the aftermath of the largest Ebola outbreak in West Africa, organizations around the world chipped in to send men and material for the benefit of at-risk populations in order to combat the deadly Ebola virus. Although a sizeable number of international volunteers were on the front line of service, only a small number were diagnosed with the virus.

A new study surveys returned volunteer responders to the UK the Ireland on exposure events and asymptomatic or paucj-symptomatic infection and finds that a significant proportion experienced "near miss" exposure events, and that most of those who experienced symptoms did not get tested for the Ebola virus (EBOV) at the time.....

Title

Summary sentence

Artwork

Author perspective (quotation)

News story

Author and paper details

- ✓ News story format of article
- ✓ **Science journalism** style of writing
- ✓ **Media contact** + author information

# Research Communication Services: Plain-language Summary



How much can we learn about the turbulence of fluids from the motions of tiny particles?

When investigating fluids, researchers introduce "fluid tracers" into the fluid and track their movement to visualize the fluid's motion; particles with very low inertia such as air bubbles have been assumed to make good tracers. This assumption, however, is now called into question by a study that demonstrated that using lightweight particles as tracers is not always a good idea, and that gravity has a significant effect on how tracers behave. The researchers of this study also devised a mathematical model to explain how the acceleration of particles in a turbulent fluid is affected by factors such as gravity.

What this study found calls for a change in methodology when using tracers. It questions the assumption that particles, bubbles, and droplets can all make good tracers as long as their inertia is small enough. The selection and accuracy of tracers in future work can be improved by taking the study's findings into account. Their findings and the mathematical model are applicable not only to small particles, but also to heavier and denser particles. Additionally, their model can be used not only in the flows of liquids, such as the ocean, but also for clouds in the atmosphere.

Title

What is the research about

Why is it important

- ✓ 200-word summary of research article
- ✓ **Non-scientific language**
- ✓ **1-min read** of the *why* and *what* of the research

# Best Practices in Communicating Science: Social Media

					
 Time	Low	Medium	Low	Varies	High
 Length	Shortest	Short(ish)	Varies	Varies	Long
 Images	Sure!	Yas!	Must!	Sure!	Ok!
 Audience	Peers/Public	Public	Peers Fam & Friends	Fam & Friends	Peers
 Ages	18-29	18-24	18-29	25-54	21-35

+ Kakao

+ WeChat

+LinkedIn

# What can journals do?

- Publish in **new content formats**

- infographics
- video
- audio



- Publish content in **new styles**

- short-form articles
- plain-language summaries
- news pieces



- Host and distribute content via **new channels**

- hosted next to article (part of version of record)
- social media
- mainstream media



# Thank You!

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