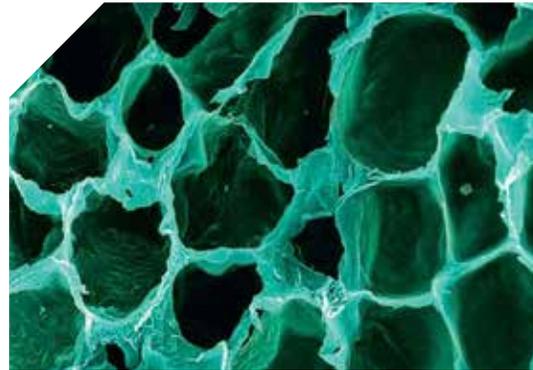


2017 MEDIA GUIDE

**Captivating the curious
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Discover's award-winning
journalism educates and empowers
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that interests and informs them.



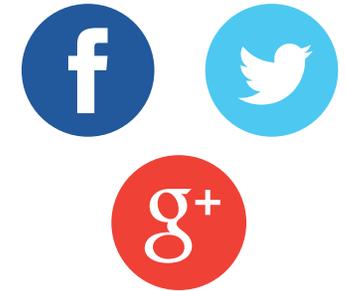
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DISCOVER MAGAZINE

Circulation 400,000

Total Audience 1,940,000

DiscoverMagazine.com

Avg Monthly Page Views 2,800,000

Avg Monthly Uniques 1,700,000

eNEWSLETTER

Avg Weekly Subscribers 350,000+

Avg Open Rate 14%

SOCIAL MEDIA

 Facebook 4,100,000

 Twitter 868,000

 Google+ 7,400,000

DELIVERING OVER 18 MILLION TOTAL BRAND IMPRESSIONS

Sources: IPSOS Media/CT 2015; Google analytics AAM 2015 Circulation - 2016 Publisher's estimate.



JANUARY/FEBRUARY

DOUBLE ISSUE: Year in Science

SPACE CLOSE: 11/2/16 MATERIAL CLOSE: 11/7/16 ON SALE: 12/13/16

Celebrating the top 100 science stories of the year.

MARCH

Royal Mummies

SPACE CLOSE: 12/22/16 MATERIAL CLOSE: 1/3/17 ON SALE: 2/7/17

They lived lives of prestige and power. In death, these women still command attention. We introduce you to five notable women mummies from around the globe.

APRIL

Artificial Intelligence

SPACE CLOSE: 2/2/17 MATERIAL CLOSE: 2/7/17 ON SALE: 3/14/17

Machine learning has reached a new level of smarts and is marching toward mastering general intelligence. And it goes way beyond driverless cars. What does this mean for the way we work, play, and live?

MAY

Heroes of Science Issue

SPACE CLOSE: 3/2/17 MATERIAL CLOSE: 3/7/17 ON SALE: 4/11/17

What did Einstein regard as his greatest triumph — and his worst blunder? Find out in this issue as we celebrate the top researchers, thinkers, and innovators — both living and historical. Plus, our favorite science heroes in fiction and popular culture and how they inspired real scientists.

JUNE

Solar System Siblings

SPACE CLOSE: 3/30/17 MATERIAL CLOSE: 4/4/17 ON SALE: 5/9/17

Dwarf planets Pluto and Ceres are siblings that couldn't be more different — one active with volcanoes and glaciers; the other quiet and apparently serene. Now researchers are studying this juxtaposition and learning their secrets.

JULY/AUGUST

DOUBLE ISSUE: "Everything Worth Knowing"

SPACE CLOSE: 5/3/17 MATERIAL CLOSE: 5/8/17 ON SALE: 6/13/17

Our new annual double issue explains both the basics on the toughest science topics and the latest, most buzzworthy news across all the fields of astronomy, medicine, psychology, archaeology, biology, the environment, and much, much more.

SEPTEMBER

Your Nose Knows

SPACE CLOSE: 6/28/17 MATERIAL CLOSE: 7/3/17 ON SALE: 8/8/17

Researchers are just beginning to understand how much we rely on scent, often without knowing it. From assessing a mate to tracking down criminals, the nose knows.

OCTOBER

Science of Aging Issue

SPACE CLOSE: 8/2/17 MATERIAL CLOSE: 8/7/17 ON SALE: 9/12/17

We explore what it takes to age well. What's the science behind maintaining a high quality of life? The experts weigh in with the latest medical and psychological research.

NOVEMBER

Numbers Game

SPACE CLOSE: 8/29/17 MATERIAL CLOSE: 9/5/17 ON SALE: 10/10/17

Random numbers by their very random nature are essential to secure online transactions. So what happens when researchers figure out that numbers aren't so random after all?

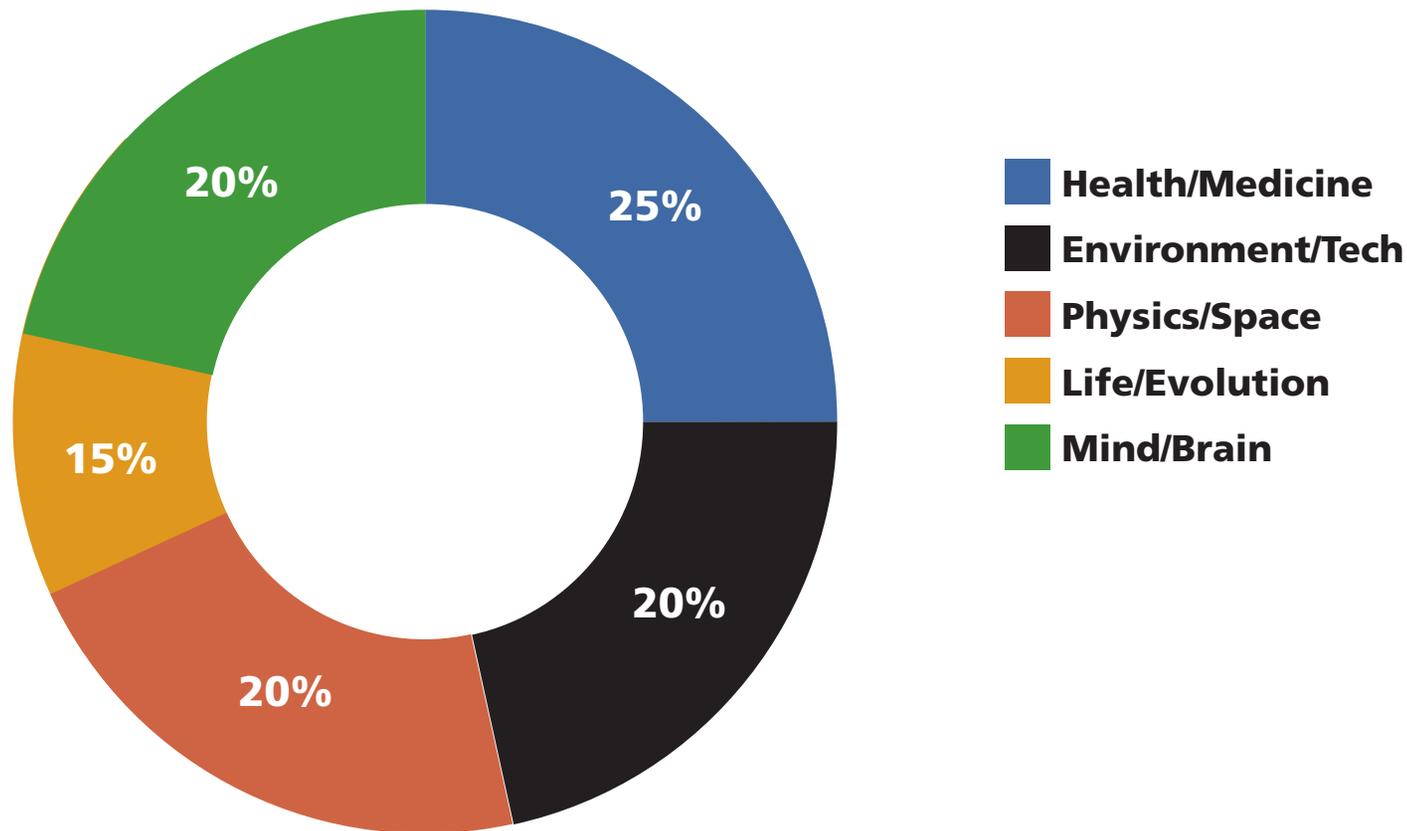
DECEMBER

Phantom Universe

SPACE CLOSE: 9/28/17 MATERIAL CLOSE: 10/3/17 ON SALE: 11/7/17

Astronomers are zooming in on a whole world of dim, dark galaxies that have escaped detection all these years. And they likely hold much of the normal matter in our universe.

Discover gives readers access to startling developments in science, technology, and the world around us, with an emphasis on how these breakthroughs affect our lives.





PRINT/ONLINE

THE CRUX

Front of the book section covers the latest discoveries and hot topics within science, medicine, technology, environment, and global issues — all through lively stories, powerful photos, and infographics.

Big Idea

Spotlights new and surprising theories, ideas, and upcoming advances.

Mind Over Matter

Covering research on how the mind works and how that relates to our everyday lives.

Notes From Earth

Inspiring a sense of wonder about our planet.

Prognosis

Covering hot trends in medicine as well as research that may have been under-the-radar until now.

History Lessons

Devoted to uncovering lost or forgotten moments and individuals throughout the history of science.

Origin Story

Covering new research in archaeology, anthropology, and human evolution.

20 Things

Focusing on surprising facts most readers may not know and find interesting.

THE CRUX
The Stories Behind the Latest Science News

- 10 The Cosmic Recipe for Earthlings
- 12 Road Map to Save Artifacts
- Ask Discover: Dreams and Dark Matter
- 14 On the Hunt for "Fairy" Mushrooms
- 16 Understanding the Sun's Energy
- See a Fish Think
- 18 Tornado Tech
- 20 Condiment Conservation

DYNAMIC DUO
A leafcutter worker ant carries a load of organic matter to their nest in a Costa Rican forest. Each ant has a specific role. The worker clips a leaf fragment from the foliage, and the minor protects the fragment against predators. The worker spends much of her time carrying the fragment directly onto the nest. —ERIC METCALER

September 2013 DISCOVER 9

RECENT NEWS & AWARDS

2015 Science in Society Award by the National Association of Science Writers

2014 American Society of Journalists and Authors Award

2014 & 2011 *Best American Science & Nature Writing Anthology*

2014 Society of Professional Journalists Award for "Face of Hope"

Big Idea

Forging New Elements
How long can scientists keep finding new pure units of matter?
By ADAM RADZIK

Take a look around: Every single thing you see is made up of elements in the periodic table. Ever since scientists first cobbled together these catalogs of nature's building blocks in the 19th century, they have wondered if there was any end to the elements and their variants, called isotopes. It's a profound question at the heart of the physical universe. Nowadays, we have 118 elements on the books, distinguished by the number of protons in their nuclei. About two dozen of these elements, however, do not occur in nature. Over the years, physicists have conjured new, short-lived and typically superheavy elements (as defined by their atomic number, or proton count) by smashing atomic nuclei together in particle accelerators. Hordes of interesting isotopes also have emerged from these collisions. Each new record-setting "superheavy" element tacked on to the periodic table gives us insight into natural laws and their limits. Meanwhile, isotopes — variants of an element with different numbers of neutrons in their nuclei — can have distinct properties that make them scientifically and industrially valuable. For example, the most frequently used isotope for medical imaging is an isotope of technetium, the first element ever artificially synthesized in 1937. And many smoke detectors contain an isotope of americium, a man-made, radioactive superheavy element originally forged in 1944. Scientists are eager to keep filling out the periodic table. One big reason: the hope of reaching the conjectured "island of stability." There, "magic numbers" — as normally done by physicists call them — of protons and neutrons should play together nicely, making for a more stable nucleus. This should afford new superheavy atoms much longer lifetimes than their rapidly decaying neighbors on the periodic table. Superheavy nuclei, by their fundamentally unstable and synthetic nature, behave in different and unpredictable ways compared with the nuclei of naturally occurring elements, so no one's sure just where the island will be. But researchers think we're close. Amazingly, though, we might first hit a wall when it comes to creating new elements beyond the 92 natural and 26 synthetic elements that currently exist. That's because today's atom-smashing methods are near their theoretical and technological limits. "We think we have a path forward to element 120," says Dawn Shaughnessy, a chemist and project leader of the heavy element program at Lawrence Livermore National Laboratory. Scientists hope to reach the "island of stability" by creating combinations of protons and neutrons that form stable isotopes among the heaviest elements. Researchers hope an "island of stability" awaits them at high numbers.

18 DISCOVERMAGAZINE.COM

Discover reaches **1.9 million** engaged and influential readers and **1.7 million** online visitors — people with a passion for science and technology.



Total Print Audience:
1,940,000

SOURCE: IPSOS MEDIA/CT 2015

READER PROFILE*

AUDIENCE	COMP%
Men	62%
Women	38%
College Educated	93%
Post Graduate Degree/ College Grad	73%
Married	77%

MEDIAN AGE: 41

Age 18-34	38%
Age 25-54	62%
Age 50+	34%
Professional/Managerial	75%
Top Management	31%
Median Household Income	\$143,916
Median Household Net Worth	\$959,212

Avg Page Views Per Month:

2,800,000

SOURCE: GOOGLE ANALYTICS & QUANTCAST

READER PROFILE*

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Women	42%
College Educated	70%
Post Graduate Degree	32%
Married	70%

MEDIAN AGE: 33

Age 18-24	14%
Age 25-34	23%
Age 35-44	18%





DISCOVER PRINT SUBSCRIBERS FEEL THE MAGAZINE:

92% keeps them well informed.

80% is fun to read.

78% challenges them to think.

They read **90%** of the issues they receive, and read or look into **75%** of the pages.

One hour and 17 minutes is spent on average with the magazine and they read it on **3.7** different days.

5 years is the average subscription.

SOURCES: MCPHETERS & COMPANY SUBSCRIBER STUDY

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DiscoverMagazine.com delivers groundbreaking information and discoveries in science, technology, and medicine — and how they affect our world. Along with award-winning content, users log on to view stunning photo galleries, blogs, interactive channels and more.



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Avg Monthly Uniques
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Avg Weekly Subscribers
350,000+

Avg Open Rate **14%**

E-newsletter Sponsorship

The *Discover* weekly e-newsletter is sent every Thursday to 350,000+ opt-in subscribers offering them an all-encompassing collection of current science-related news and information.

Leaderboard: 468 x 60
 Medium Rectangle: 300 x 250

2017 CLOSING/ON-SALE DATES

ISSUE	SPACE CLOSE	MATERIAL CLOSE	PUB. DATE	ON SALE
January/February	11/2/16	11/7/16	12/3/16	12/13/16
March	12/22/16	1/3/17	1/28/17	2/7/17
April	2/2/17	2/7/17	3/4/17	3/14/17
May	3/2/17	3/7/17	4/1/17	4/11/17
June	3/30/17	4/4/17	4/29/17	5/9/17
July/August	5/3/17	5/8/17	6/3/17	6/13/17
September	6/28/17	7/3/17	7/29/17	8/8/17
October	8/2/17	8/7/17	9/2/17	9/12/17
November	8/29/17	9/5/17	9/30/17	10/10/17
December	9/28/17	10/3/17	10/28/17	11/7/17

AD MATERIALS ARE DUE BY THE MATERIAL CLOSE DATE.
 CANCELLATIONS MUST BE RECEIVED BY THE SPACE CLOSE DATE OR ADVERTISER
 WILL BE HELD RESPONSIBLE FOR PAYMENT OF SPACE RESERVED.

NATIONAL GROSS RATES

FOUR COLOR

FREQ	FULL	2/3	1/2	1/3	1/6
1x	36,750	27,379	21,683	15,141	8,159
3x	33,810	25,188	19,948	13,930	7,506
6x	31,973	23,820	18,864	13,173	7,098
10x	31,238	23,272	18,430	12,870	6,935

BLACK & WHITE

FREQ	FULL	2/3	1/2	1/3	1/6
1x	26,250	19,556	15,488	10,815	5,828
3x	24,150	17,992	14,249	9,950	5,361
6x	22,838	17,014	13,474	9,409	5,070
10x	22,313	16,623	13,164	9,193	4,953

COVERS: FOUR COLOR

FREQ	COVER 2	COVER 3	COVER 4
1x	42,893	41,921	43,654
3x	39,461	38,568	40,161
6x	37,316	36,471	37,979
10x	36,459	35,633	37,106

EFFECTIVE JAN/FEB 2017 ISSUE | CIRCULATION: 400,000 | AAM AUDITED





AD SPECIFICATIONS

SIZE	NONBLEED	BLEED	TRIM
Full Page	7" x 10"	8 1/4" x 10 3/4"	8" x 10 1/2"
Spread	15 1/2" x 10"	16 1/4" x 10 3/4"	16" x 10 1/2"
1/2H	7" x 4 7/8"		
1/2V	3 3/4" x 10"		
1/3V	2 1/4" x 10"		
1/3S	4 5/8" x 4 7/8"		
1/6V	2 1/4" x 4 7/8"		

UPLOAD FILES TO: adsubmission.kalmbach.com

MECHANICAL SPECIFICATIONS

- Binding: Saddle-stitched.
- No bleed charge. Type safety area for a page is 7 1/2 x 10 inches.
- Hold live matter 5/16" from the trim. Publisher shall not be subject to any liability whatsoever for bleed ads extending past these margins.
- Keep live material (type) 1/4" on either side of the gutter for two-page spread ads.
- 4/C Process Specifications: Advertisers should supply a color accurate (SWOP) digital proof (e.g. Epson, Kodak, etc.) otherwise publisher cannot be held responsible for color problems during output or printing. Ads must be prepared using CMYK colors. Pantone and RGB will be converted to the closest CMYK separations.
- Provide a printout or proof: To help ensure that accurate output and placement of your digital ad, publisher recommends that you send one of the following proofs when submitting your final ad: jpeg, screenshot, fax, or mailed printout. If a proof/printout is not received, publisher cannot be responsible for errors or discrepancies that may occur in the final product. Advertiser may supply a color contract proof to be used in place of a printout.

BILLING

Agency commission: 15% of gross

Terms: Net due 30 days

Bills are rendered two weeks prior to issue on-sale date. 1.5% per month carrying charge from date of invoice if unpaid after 60 days.



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Campaign Options

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Master/Companion: Ads appear at the same time on a selected channel or blog for a specified amount of impressions and time frame.

Roadblock/Takeover: 100% Share of Voice for a specified time frame.

Channel/Blog Sponsorship: Ads and your logo are placed on a targeted channel or blog. 100% Share of Voice for a specified time frame.

Rates

ROS	\$17
Master/Companion	\$22
Roadblock/Takeover	\$27
Channel/Blog Sponsorship	\$30

Open CPM

Ad Specs

Medium Rectangle 1&2:	300 x 250 pixels
Leaderboard:	728 x 90 pixels
Skyscraper:	160 x 600 pixels

HOW TO SUBMIT YOUR AD

Ad materials are due 3 business days prior to the go live date.

Please send ad files and links to: dpagel@kalmbach.com

File Types: .JPG .GIF

File Size: 50K Max

Animation: 15 seconds total, 4 loops.

Third Party Serving: Third party serving by approved vendors only and will be evaluated and authorized on a case-by-case basis. We reserve the right to remove creative at any time if we encounter performance problems.

eNewsletter

Discover NEWS is *Discover's* all-encompassing weekly science news-based newsletter sent to over 330,000 opt-in subscribers every Thursday.

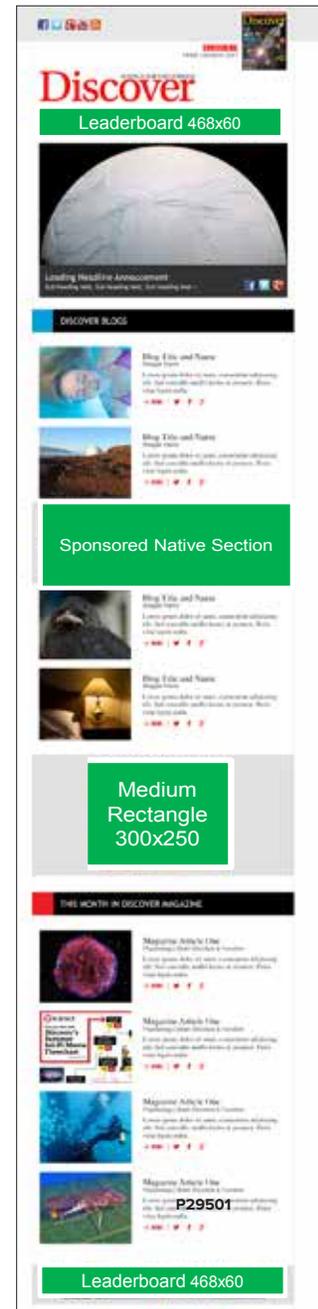
Advertising Sponsorships:

Leaderboard	468 x 60 pixels
Medium Rectangle	300 x 250 pixels
Sponsored Native Content	

Rates

Leaderboard	\$15
Medium Rectangle	\$15
Sponsor/Native	\$15
Custom eBlast	\$45

Open CPM



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Derrmediagroup@comcast.net

KALMBACH PUBLISHING CO.

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Submission of any advertisement, insertion order, space reservation or position commitment shall constitute acceptance of the following General Conditions:

- As used in this section titled "General Conditions," the term "publisher" shall refer to Kalmbach Publishing Co.
- All insertion orders are accepted subject to provisions of our current rate card. Rates are subject to change upon written notice from the publisher. Should a change in rates be made, space reserved may be cancelled by the advertiser or its agency at the time the change becomes effective without incurring short-rate charges, provided the advertisements published to the date of cancellation are consistent with the appropriate frequency rate or volume rate. Cancellation of space reservations for any other reason in whole or part by the advertiser will result in an adjustment of the rate (short-rate) based on past and subsequent insertions to reflect actual space used at the earned frequency rate or volume rate.
- Advertisements are accepted upon the representation that advertiser and its agency have the right to publish the contents thereof. In consideration of such publication, advertiser and its agency agree to indemnify and hold publisher harmless against any expense or loss by reason of any claims arising out of publication.
- All contents of advertisements are subject to publisher's approval. Publisher reserves the right to reject or cancel any advertising copy which at its discretion is deemed objectionable, misleading, not in the best interests of the reader, or contrary to Federal and State regulations, whether or not the ad had previously been accepted and/or published. Publisher further reserves the right to reject or cancel any advertisement, insertion order, space reservation, or position commitment at any time without giving cause. Publisher reserves the right to insert the word "advertisement" above or below any copy.
- Advertising space reservations are accepted in good faith by verbal or written notification. The absence of written notification following a verbal space reservation does not invalidate that space commitment.
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- Publisher shall have the right to hold advertiser and/or its advertising agency jointly and severally liable for such monies as are due and payable to the publisher for advertising which advertiser or its agency ordered and which advertising was published.
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- Publisher shall have no liability for errors in key numbers, or advertiser's index.
- Conditions other than rates are subject to change by publisher without notice.
- No conditions other than those set forth in this rate card shall be binding on the publisher unless specifically agreed to in writing by the publisher. Publisher will not be bound by conditions printed or appearing on insertion orders or copy instructions which conflict with provisions of this rate card.
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