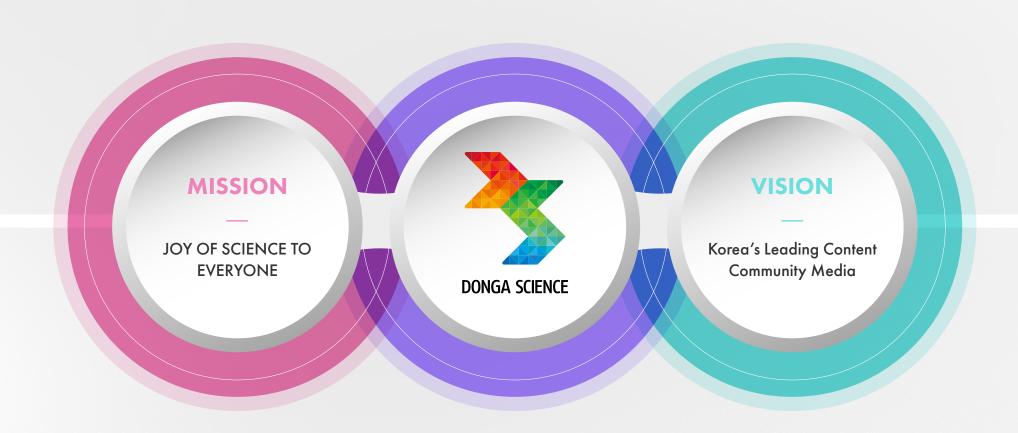
# DONGA SCIENCE

JOY OF SCIENCE
TO EVERYONE



#### HISTORY



#### **February**

Our Neighborhood Zoo Guards

#### May

Kids Math Donga begins publication

#### December

Science Donga named as Best Magazine by Ministry of Culture, Sports, and Tourism in 2021

#### January

Popcorn Planet Community Launched



#### **April**

Science Donga AiR edu — Service Launched

#### October

Dongascience.com — Global Services Launched

#### October

Science Donga Books — Launched on Amazon (eBooks and Print)

### January

Naver News Content Partnership

2023

#### July

Korea Space forum launched

#### November

Kids Science Donga & Earth Loving Explorers receives Seoul Metropolitan City Environment Award

#### December

Science Alive - Hosted



The 1st KSF in 2019

#### September

Strategic Investment in kokozi Co., Ltd

#### November

MOU Signed with the Brian Impact Foundation to Promote Citizen Science

#### April

Rebuilding of the scientific knowledge platform [d Library] opens

#### April

Launch of the 1st Kids Astronaut Selection Contest

#### September

Al Solution for Inquiry-Based Learning [Science Donga AiR]



30 Kids Space Ambassadors

#### January

Science Donga — 40th Anniversary

#### March

National Student Science Essay Competition — Hosted

#### **August**

Science and Technology Ambassador Program - Implemented

#### September

Selection and Awards for Role-Model Scientists and Engineers

#### December

Gwacheon National Science Museum — Grand Prize in **Exhibition Concept Design** 



#### October

Kids Science Donga begins publication



#### November

Gwacheon National Science Museum — "Darwin" Special Exhibition (Grand Opening Commemoration) Hosted



#### **February**

Citizen science project Earth Loving Explorers

#### November

Donga Science Observatory opened as the only observatory in the city

January

Polymath Project - Launched

established

September

Donga Science Co., Ltd.

#### January

Science Donga begins publication(The DONG-A ILBO)



#### January

Theater-Style Science Lecture Hosted

#### December

Children's Science Play "Einstein's Wonderland"

- Planned and Performed

#### March

Robot Taekwon V 30th **Anniversary Promotion** Symposium

#### November

Donga Science Gifted Education Institute "Genium" Established

#### October

Math Donga begins publication



#### **August**

Science Vacance Hosted





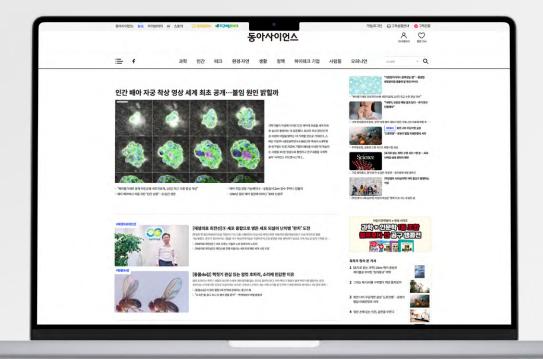
**MEDIA BUSINESS** 



#### **Science Media Connected to Your Life**

As Korea's largest science media portal, we deliver daily news, in-depth features, and digital magazines covering the latest developments across the scientific community.

www.dongascience.com



Dongascience.com

Science Donga

Kids Science Donga

Kids Math Donga

Math Donga

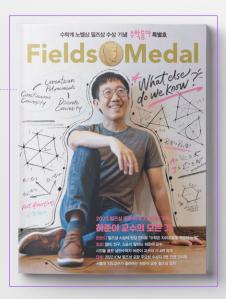
SFI7



### The Joy of Experiencing Science, A Window to the Future

Science Donga (founded in 1986) is Korea's leading science magazine.

Our specialist science journalists deliver vivid coverage of the latest domestic and global research and news across the full spectrum of science—from space and biotechnology to artificial



#### Add Joy, Multiply Creativity

We present content that explores the essence of mathematics at a reader-accessible level, conveying the joy and beauty of math through real-life examples, challenging problems, and its history and people. Math Donga's content is available on d Library.

## Funny Science, Smart Comics

Founded in 2004, Kids Science Donga is Korea's leading children's science magazine. It has twice received the Science Journalism Award from the American Association for the Advancement of Science (AAAS). Through engaging science-learning comics and articles, as well as community programs—including the citizen-science initiative Earth Loving Explorers and Kids Science Donga Press—we provide experiences that inspire children to dream and explore future career paths.



## The Most Fun on Earth, The Best Thinking in the Universe

Launched in 2021 and co-created by mathematicians and teachers, it is Korea's only children's mathematics magazine. Through playbased and cross-curricular content, it helps early elementary students experience the joy of mathematics and build reasoning skills.



aily News

aaazine

SNS Media

Dongascience.cor

Science Donga

Kids Science Donga

Kids Math Donga

Math Donga

SE!ZE



**MEDIA BUSINESS** 













### **SE!ZE**

#### First to See the Future, SE!ZE

SE!ZE is a science-focused video channel delivering stories directly tied to the future of Millennials and Gen Z. You can find SE!ZE on Instagram (@seize.the.future) and on our YouTube channel (@seize1222).

O DIGITAL SERVICES

d Library

Science Donga AiR
Science Donga AiR

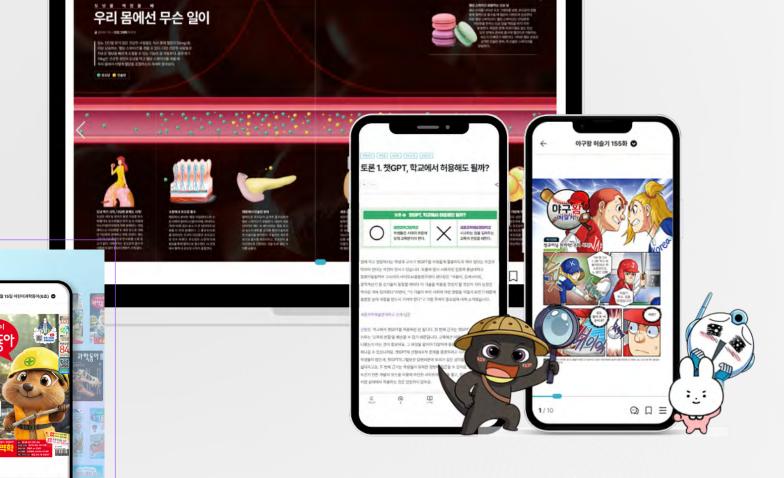
2024년 04월 과학동아 ❖

### 리 라이브러리

### Science Knowledge Platform for Future Generations

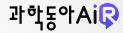
d Library is a science knowledge platform for future generations—helping them start easily with comics and quizzes and deepen their understanding through articles and e-books. From 100,000 science and math articles to 1,200 issues of science and math magazines and 250 e-books, d Library curates an online learning journey where anyone can enjoy science and grow.

리 라이브러리





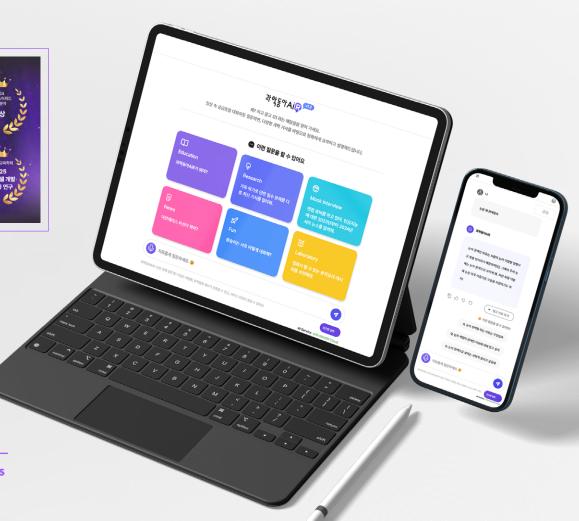


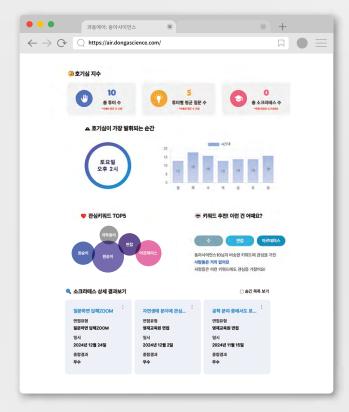


#### **Al Solution for Inquiry-Based Learning for Future Generations**

Science Donga AiR is an Al-powered science inquiry platform built on more than 100,000 pieces of science content. When students ask a question, the Al finds relevant articles and provides summaries and explanations. It supports student-led questioning and investigation, and—based on inquiry reports or personal statements—offers Al mock interviews that assist with career exploration and self-directed learning.

air.dongascience.com







#### **Science AI That Turns Student Questions into Inquiry**

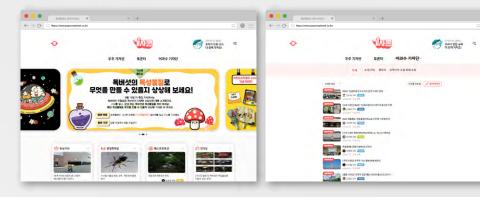
Science Donga AiR edu is an Al-powered science inquiry platform for educational institutions, purpose-built for classroom use as a specialized edition of Science Donga AiR. Students co-create questions and conduct inquiry with AI, while teachers can analyze activities and provide guidance in real time. Beyond regular science classes, it can be used in the Free Semester Program and gifted classes, and it is currently being piloted and deployed across metropolitan and provincial offices of education, schools, and libraries nationwide. edu.dongascience.com



Popcorn Planet

Earth Loving Explorers

Kids Space Pres









#### **Popcorn Planet**

A science community offering participatory content, including the Kids Science Donga Press program. Readers of Kids Science Donga and Kids Math Donga also enjoy complimentary admission to major science centers and museums nationwide. <a href="https://www.popcornplanet.co.kr">www.popcornplanet.co.kr</a>











#### Discovering Life Together, Living in Harmony with Earth

A citizen-science project jointly run by Kids Science Donga and Professor Jang Yikweon of the Department of EcoScience at Ewha Womans University. Working with ecologists, approximately 4,000 participants each year survey and document species nationwide, learn the value of biodiversity, and contribute to scientific research.

jisatam.dongascience.com





#### **Launch Your Dreams into Space**

Kids Space Press is a reporters' program for elementary school students who dream of space. Each year, approximately 1,600 children cover research sites at domestic space institutions and companies. Outstanding reporters are appointed Space Ambassadors and may be offered opportunities to visit NASA.

### □5 스토어

## A Knowledge Store Delivering the Joy of Science

DS Store is Donga Science's official online store—a curated marketplace specializing in educational products for science and math enthusiasts. It offers official publications and goods from Science Donga, Kids Science Donga, and Kids Math Donga, along with curriculum-aligned essentials and a wide range of playful, science-themed items. In line with Donga Science's mission—"Joy of Science to Everyone"—DS Store features products that make learning enjoyable, broaden knowledge, and bring the world into the classroom.

dsstore.dongascience.com

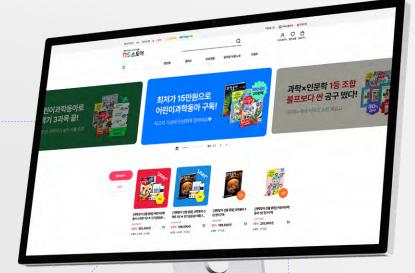
#### (1) What products do you offer?

We primarily offer products related to science and mathematics, complemented by a range of curriculum-aligned materials across all subjects. We currently carry science kits and books, and we are continually expanding into specialized categories—such as the Walking Robot series, subscription-based advanced (gifted) science experiment kits, and global educational kits including Smartivity.

#### (I) Who are DS Store's customers?

Our primary customers are parents of elementary and middle school students, as well as the students themselves.









#### **SCIENCE CULTURE INITIATIVES**









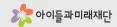


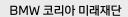






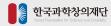












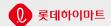






















### Science Education Partnership for Nurturing Future Talent

We cultivate future-ready talent who, grounded in scientific literacy and knowledge, can solve problems independently and create new value. Through robust partnerships with corporations, NGOs, and public institutions, we develop social-impact solutions that expand access to high-quality learning opportunities for more youth and advance the value of education.

#### **ICSR** Initiative Branding

- Program design aligned with the latest CSR trends
- Communications amplified through media and platform ecosystems

#### **I Education Content Development**

- Industry- and institution-linked curriculum development
- Design and production of textbooks, instructional materials, and hands-on kits

#### | Program Delivery & Operations

- Program planning and execution by expert teams
- Structured, process-based operational management across all stages
- Vetted roster of qualified instructors and professional authors

#### | Program Areas

- Software & Digital Literacy Education
- STEM Education
- Environmental & ESG Education
- Al Education

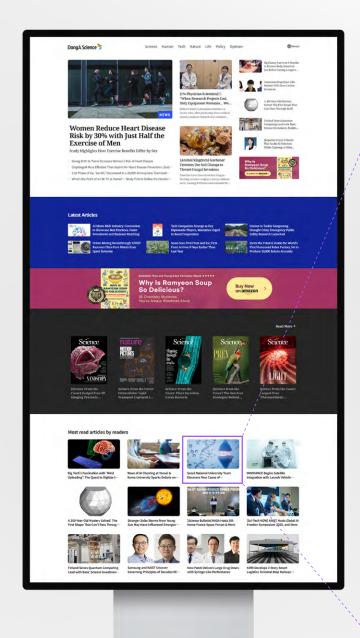
about.dongascience.com/dsedu

#### GLOBAL SERVICES



We publish English-language science articles through AI agents that handle automated translation, verification, and optimization for both SEO and GEO targeting.

This allows us to deliver accurate and distinctive science news and content from Korea to readers around the world.





A South Korean research team has identified that the deletion of the tumor suppressor candidate gene 'TUSC3' is a cause of developmental disabilities. Provided by Getty Images Bank

A South Korean research team has identified that the deletion of the tumor suppressor candidate gene "TUSC3" is a factor that causes developmental disabilities. This finding clarifies a new pathogenic mechanism for these disabilities and is expected to provide clues for developing preventative or therapeutic methods.

Seoul National University announced on the 11th that research by Jeong Yonggeun, an emeritus professor at the College of Natural Sciences, and Ph.D. candidate Park Kyung-rin, which identified the cause of TUSC3-deletion developmental disability (intellectual disability) and suggested treatment clues, was published in the international journal 'Nature Communications' on the 7th (local time).



Mutations in the TUSC3 gene have been repeatedly reported in patients with intellectual disabilities. As the function of the TUSC3 gene was largely unknown, the research team initiated a study to determine its role in cell and animal models.

The research team created a TUSC3-deficient animal model and discovered that the deletion of the TUSC3 gene disrupts magnesium homeostasis in the endoplasmic reticulum (ER), leading to ER stress and a reduction in synaptic proteins. The ER is an organelle responsible for protein synthesis and quality control within the cell, playing a key role in maintaining cellular homeostasis. Under stressful conditions, abnormal protein folding can induce ER stress, which can damage neuronal function. ER stress refers to the stress caused by the accumulation of improperly folded proteins due to various internal and external factors.

In the TUSC3-deficient animal model, the team confirmed that TUSC3 interacts with an ER magnesium transporter to regulate magnesium concentration in the ER of neurons. They revealed that the gene's deletion causes hyperactivation of an ER kinase pathway, leading to a decline in neuronal function.

The team also suggested the possibility of treating developmental disabilities by restoring ER magnesium homeostasis. They demonstrated in the naimal model that by restoring the magnesium concentration in the ER through magnesium supplementation, ER stress in the TUSC3-deficient model was alleviated, normalizing synaptic function. Consequently, cognitive abilities were significantly recovered.

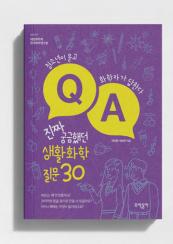
The research findings are recognized for proposing a new pathological axis of 'ER magnesium deficiency - ER stress - synaptic decline' and for laying the groundwork for developing future treatment strategies for developmental disabilities that regulate ER magnesium homeostasis.

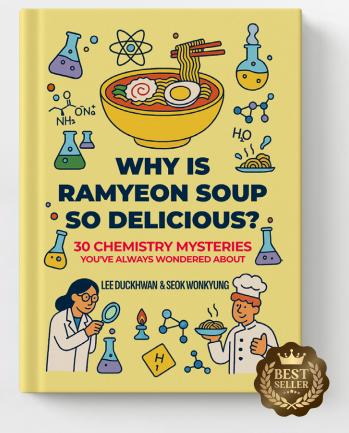
#### <Reference

-https://www.nature.com/articles/s41467-025-65668-1

Copyright © DongA Science. All rights reserved.

#### • GLOBAL SERVICES

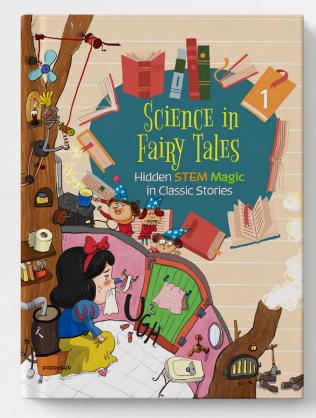




#### Science Donga Books Global Launch

Science Donga Books is releasing English-language titles on Amazon, Google Books, Apple Books, and Barnes & Noble. Leveraging proven K-Science content, we are expanding into the global science education market.







Address 10F, 29 Chungjeong-ro, Seodaemun-gu, Seoul, Republic of Korea