FREE

BioSciTech BiWeekly Newsletter

1 May 2026 (Issue 48)

SELECTION FROM THE PAST TWO WEEKS

Hottest News In Biotech, BioResearch, Pharma, BioHealth
Highly Selected Research Papers
Best Recommended Events and Job Offers.

NEWS & COMMENTARIES

Algerian President Bio-AI Award

Congratulations to the student Anaïs Daoud on obtaining the second place in the President's Award for Innovative Researcher, which was organized on the occasion of Flag Day (April 16) at the level of the scientific and technological pole. Anaïs is a student at the National Higher School of Artificial Intelligence and a member of the school's incubator, where she is working on an innovative biology project using artificial intelligence. Her project analyzes cell data to understand their evolution towards insulin production, and provides a virtual lab to simulate the impact of genetic modifications, helping to guide experiments and reduce time and cost.

The photo: Anais receiving her Award Certificate from the Algerian Prime Minister

https://www.linkedin.com/in/ana%C3%AFs-daoud-3615b6245/?locale=en

Anaïs Daoud

Gilead pays US$7.8 billion for Arcellx's next-generation CAR T candidate

Gilead is buying Arcellx and its BCMA-directed chimeric antigen receptors (CAR) T cell therapy anitocabtagene autoleucel (anito-cel) for US$7.8 billion. Gilead-subsidiary Kite and Arcellx have been working together on the multiple myeloma therapy since 2023, and have submitted it for FDA review.

https://www.nature.com/articles/d41573-026-00034-4

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https://www.nature.com/articles/d41573-026-00034-4

FDA approves dwarfism drug

Ascendis Pharma has secured accelerated approval for its navepegritide (Yuviwel) to accelerate the growth of children 2 years of age and older with achondroplasia, a common form of dwarfism. Navepegritide is a once-weekly injected prodrug of C-type natriuretic peptide (CNP).

https://www.fda.gov/drugs/news-events-human-drugs/fda-approves-drug-pediatric-patients-most-common-form-dwarfism

NEWS & COMMENTARIES

The air is full of DNA.

Aisling Irwin, 2026

https://www.nature.com/articles/d41586-026-01099-2

Scientists have long pulled DNA from water and soil, but they have only just started to see the air as a source of genetic information. Over the past decade or so, researchers have been learning how to measure airborne DNA, study its abundance and use it to put together a picture of an ecosystem's inhabitants and health. Airborne DNA is being used to monitor individual species, and being trialled as a way to detect invasive species or attacks with biological weapons. It is also being tested as a way to judge the success of conservation efforts. The technique promises to link "the whole [of] biodiversity, the whole world together with a single assay that's really rapid and that can even be done in the field and analysed in the cloud", says David Duffy, a researcher who specializes in wildlife disease genomics at the University of Florida in St Augustine.

CALL FOR PAPERS: GREAT OPPORTUNITY FOR JUNIOR RESEARCHERS

Special Editor Invitation: Drug Discovery and Drug Development in Molecular Sciences, The International Journal of Molecular Sciences, MDPI is now launching a special issue, with myself as the Guest Editor, on this especially important subject. Contributions on any of the relevant aspects of the subjects are highly encouraged and needed.

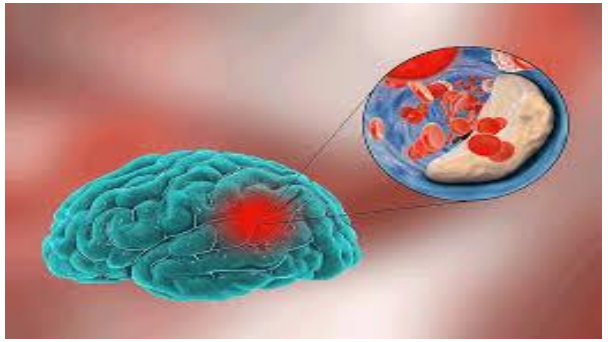
You can directly upload your manuscript to this special issue of the Journal of Molecular Sciences, MDPI.

https://lnkd.in/eASU-p7H

For any additional questions you can contact me or Prof. Rafaat ElGewely or Dr. Mohamed Boudjelal at:

Email: raafatgewely@gmail.com: raafat.el-gewely@uit.no or boudjelal@yahoo.com

SELECTED PUBLICATIONS

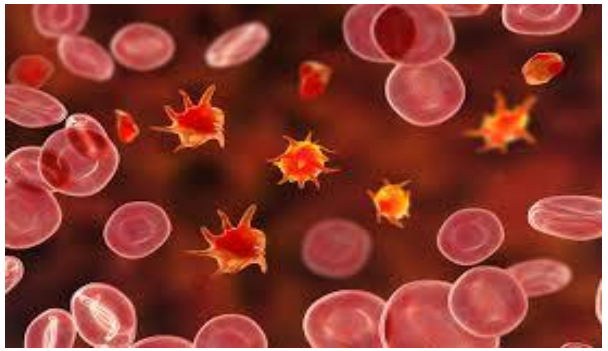


Asundexian for Secondary Stroke Prevention

Mukul Sharma et al., 2026

DOI: 10.1056/NEJMoa2513880

Patients with noncardioembolic ischemic stroke or high-risk TIA are at risk of recurrent stroke. A phase 3 trial tested asundexian (50 mg daily) versus placebo alongside antiplatelet therapy, involving 12,327 patients. Results indicated a lower incidence of ischemic stroke in the asundexian group (6.2%) compared to placebo (8.4%), with a hazard ratio of 0.74 (P<0.001). Moreover, the asundexian group showed reduced rates of composite cardiovascular outcomes, while major bleeding incidence was similar between both groups (1.9% vs. 1.7%). Asundexian demonstrated effectiveness in reducing ischemic stroke and major cardiovascular events without increasing bleeding risk.

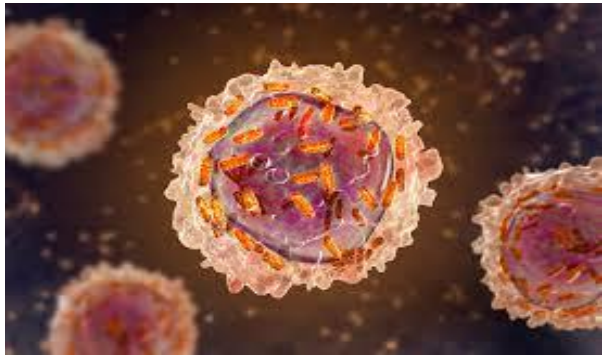


Ianalumab plus Eltrombopag in Immune Thrombocytopenia

Adam Cuker, M.D et al., 2026

DOI: 10.1056/NEJMoa2515168

Ianalumab, a B cell-targeting monoclonal antibody, was evaluated as a short-course therapy in a phase 3 trial with 152 adults, randomized 1:1:1 to receive either 9 mg or 3 mg of ianalumab or placebo alongside eltrombopag. The primary endpoint focused on treatment failure, defined by a platelet count below 30×10^9 per liter after 8 weeks, and the key secondary endpoint assessed stable platelet responses at 6 months. Results showed the estimated freedom from treatment failure was 54% in the 9 mg group and 30% in the placebo group, with longer times to treatment failure for ianalumab. Overall, ianalumab plus eltrombopag resulted in improved treatment outcomes compared to placebo



Treatment of acute myeloid leukemia models by targeting a cell surface RNA-binding protein

Benson M. George et al., 2026

https://doi.org/10.1038/s41587-025-02648-2

Immunotherapies for acute myeloid leukemia (AML) face challenges due to limited tumor-specific targets. This study identifies RNA-binding proteins and glycosylated RNAs (glycoRNAs) that form organized nanodomains on cancer cell surfaces, focusing on nucleophosmin (NPM1) as a prevalent cell surface protein (csNPM1) across various tumors. csNPM1 is found on AML blasts and leukemic stem cells, avoiding normal hematopoietic stem cells. A monoclonal antibody targeting csNPM1 shows significant anti-tumor effects in AML models and is not toxic. csNPM1 expression is mutation-agnostic in primary AML cells, indicating potential for broad detection and treatment strategies..

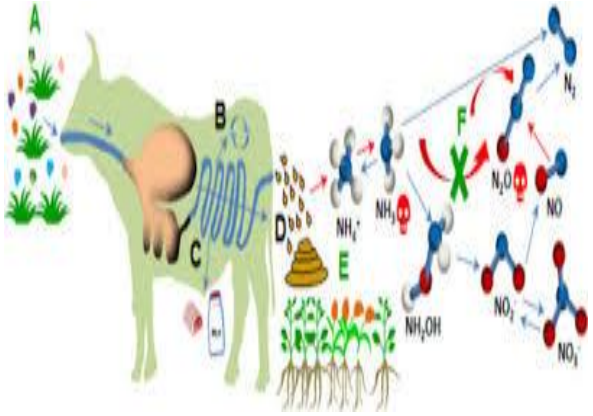
SELECTED PUBLICATIONS

Ferritin aggregation cell engager for CAR T avidity engineering against refractory leukemias

Feng Li et al., 2026

DOI: 10.1016/j.cell.2026.02.005

Chimeric antigen receptor T (CAR T) cell therapy for leukemias faces challenges from antigen modulation leading to resistance. To address this, researchers developed a ferritin aggregation cell engager (FACE) that targets CD71 expressed on both leukemia and CAR T cells. FACE enhances CAR T cell activity against leukemia cells and reduces the antigen density required for effective response. In vitro and in vivo testing demonstrates that FACE-CAR T cells improve therapeutic efficacy while maintaining safety, enabling drug delivery alongside chemotherapy. This method presents a versatile strategy for enhancing CAR T therapy in difficult-to-treat leukemias.

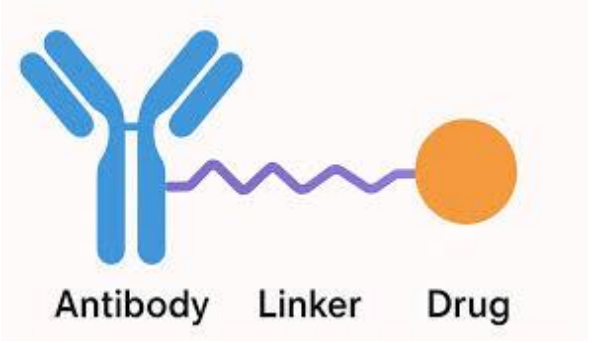


Genome-resolved multi-omics provide new insights into microbial nitrogen utilization by the rumen microbiota.

Yan, M., Firkins, J., Guo, J. et al. 2026

https://doi.org/10.1186/s40168-026-02422-9

Optimizing nitrogen (N) use in ruminant production is important for economic and environmental reasons. Traditional views of N metabolism, based mainly on well-studied rumen bacteria, do not fully capture the complex N processes in the rumen. To explore this, researchers used comparative genomics and multi-omics analyses on curated microbial genomes to study N assimilation in rumen microbes. They found that many key ammonia assimilation and regulation mechanisms, such as the GS/GOGAT pathways, were missing in dominant rumen microbes, suggesting they use different pathways. An animal trial with 11 pairs of lamb twins showed that dietary crude protein levels (10% and 13%) had little effect on the microbiome or N gene expression, while concentrate levels influenced N assimilation.



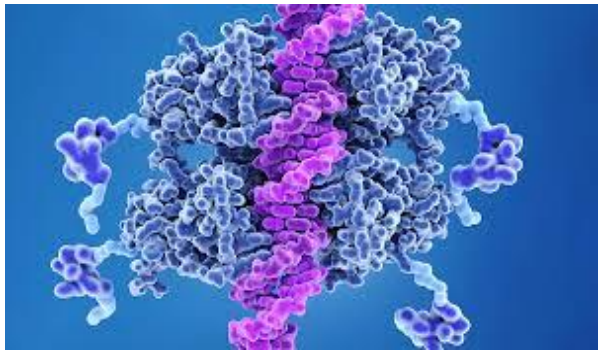
EGFR- and HER3-targeted bispecific antibody-drug conjugate demonstrates anti-tumor activity in metastatic castration-resistant prostate cancer

Bangwei Fang et al., 2026

https://doi.org/10.1172/JCI201090.

Metastatic castration-resistant prostate cancer (mCRPC) has few treatment options and remains deadly. Izalontamab brengitecan (Iza-bren; BL-B01D1) is a bispecific antibody-drug conjugate that targets EGFR and HER3. We studied its effects in prostate cancer, finding high EGFR and HER3 expression in CRPC adenocarcinoma. BL-B01D1 showed strong cytotoxic effects in various prostate cancer models. One patient with high EGFR/HER3 expression had a good response to the treatment. ABCG2 was identified as a resistance mechanism, and its inhibition could restore sensitivity, making BL-B01D1 a promising treatment option.

SELECTED PUBLICATIONS

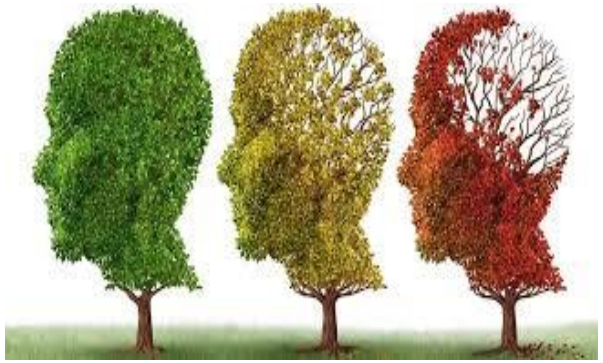


Multiomics and deep learning dissect regulatory syntax in human development

Betty B. Liu et al., 2026

https://doi.org/10.1038/s41586-026-10326-9

Transcription factors shape cell identity during development by binding to specific DNA sequences, which influences gene expression and chromatin accessibility. Current data on human development is limited to bulk tissue, single organs, or specific modalities. The Human Development Multiomic Atlas is introduced as a single-cell atlas that includes chromatin accessibility and gene expression from 817,740 fetal cells across 12 organs and 203 cell types. It also highlights over 1 million potential cis-regulatory elements with organ-specific enhancer activity. Deep learning models reveal how DNA motifs affect accessibility and gene expression, including rules that dictate motif arrangement and its impacts on genetic variation.



Immune signaling and function in neurodegeneration

Yvonne L. Latour and Dorian B. McGavern, 2026

DOI: 10.1172/JCI199850

Neurodegenerative diseases result from interactions among harmful proteins, immune responses, and environmental or age-related stressors disrupting central nervous system (CNS) balance. Microglia detect danger signals and, when activated, can clear abnormal proteins like amyloid-β and tau, but their activation can also worsen neuroinflammation. Their changes are influenced by signaling and antigen presentation pathways. Adaptive immune cells, including CD8+ and CD4+ T cells, can have protective or harmful effects depending on the disease situation. Factors such as aging, head injuries, and infections modify microglial behavior and promote chronic inflammation. This review discusses immune mechanisms in neurodegeneration and their implications for future therapies.

Mechanical load inhibits cancer growth in mouse and human hearts

Giulio Ciucc et al., 2026

DOI: 10.1126/science.ads9412

The heart is rarely affected by cancer, with mechanisms behind its resistance unclear. We hypothesized that mechanical load limits cardiac and cancer cell proliferation. Using a mouse model, we confirmed the heart resists oncogenic events, showing cancers elsewhere but not in the heart. Mechanical unloading promoted cancer cell proliferation in engineered tissues, linked to chromatin changes. Nesprin-2 emerged as a key mechanotransduction protein, with silencing restoring proliferation, suggesting mechanical forces protect the heart from cancer.

RECOMMENDED EVENTS & JOB CORNER

GSK's Work Experience Stevenage programme is open now for applications from UK year 12 students keen on STEM careers. **Apply by 22nd May to join us this summer in Stevenage (27th - 30th July) to:**
- Discover the 'molecule to market' journey
- Gain insight into life at GSK
- Explore Biology, Chemistry or Data Science
- Hear about STEM career opportunities
- Take part in activities to help develop your skills

You'll learn about how we unite science, technology and talent to get ahead of disease together.
Applications close 22nd May. Students will be notified of the outcome of their application by 1st June. Scan the QR code to apply!
https://www.gsk.com/en-gb/careers/early-careers/graduate-programme/

Discovery & Development Europe 2026

Over 1,000 senior scientists and R&D leaders across Drug Discovery Europe, Formulation and Delivery Europe and Automation, AI and Data Europe.
Keynotes from Paul Workman OBE FRS, Dave Hallett of Recursion, Samir Mitragotri of Harvard University and Rafal Kaminski of Angelini Pharma.
Berlin. 15-16 June. Estrel Congress Centre.
https://oxfordglobal.com/discovery-development/events/discovery-development-europe/book-now/

Open for applications
Women in technology, Moving the world forward.

The technological challenges facing our world today demand diverse perspectives and innovative approaches. Women researchers play a critical role in shaping technologies that benefit society and the planet, yet their contributions have historically been under-recognized.
Your work deserves recognition. The Sony Women in Technology Award with Nature provides not just a financial prize of US $250,000, but a platform to amplify your vision and connect with fellow innovators transforming technology for social good.
https://womenintechnology.sony.com/application-guide

RECOMMENDED EVENTS & JOB CORNER

UK Human Functional Genomics Initiative

Manchester on Thursday 25 June 2026 for the UK Human Functional Genomics Initiative Scientific Symposium. Building on the momentum of the inaugural 2025 meeting at the University of Exeter, this symposium promises to deepen the conversation around how to translate genetic-variation into biological mechanism and, ultimately, human health impact.
https://www.bioindustry.org/events/our-events/scientific-symposium-uk-human-functional-genomics-initiative.html

Postdoc in Single-Cell and Spatial Multi-Omic Gene Regulatory Networks Full-time UMass Chan Medical School

Applications for a NIH-funded postdoctoral researcher position in our computational lab at UMass Chan Medical School. Our lab specializes in reconstructing multi-omic causal gene regulatory networks (GRNs) from large-scale single-cell datasets. We are pioneers in GRN reconstruction from single-cell multi-omics, including:
https://jobrxiv.org/job/umass-chan-medical-school-27778-postdoc-in-single-cell-and-spatial-multi-omic-gene-regulatory-networks/

PhD and Postdoctoral Positions Available –National University of Singapore (NUS)

The laboratory focuses on neutrophil biology, inflammation, and resolution mechanisms, with an emphasis on how immune responses transition from pro-inflammatory to pro-resolving states, and how the immune landscape shifts in aging and chronic inflammation.
To apply, please send your CV, a brief statement of research interests, and contact information for 2–3 references to **alanyihuihsu@gmail.com**

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