The Arising

OCTOBER 13, 2026

DAILY ISSUES



EDITORIAL ILLUSTRATION / AN ARTISTIC INTERPRETATION

Life, in all its complexity.

METABOLISM / MIDLIFE / HUMAN HEALTH

The full original issue follows, with its articles and sources preserved.
Editorial review copy. This illustration update is not a new evidence audit.

ARISING HEALTH

The Arising

HEALTH INTELLIGENCE

LONGEVITY
SCIENCE
MARKETS
HUMAN HEALTH

Tracking emerging Medical Intelligence from a Physician's View

TUESDAY, OCTOBER 13, 2026 | VOL 1 NO 11 | ARISING HEALTH

10 stories across 2 desks | ~22 minutes to read | 167 briefs grouped by topic

LONGEVITY & HEALTHSPAN

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A ketogenic diet sped up tumor growth and shortened survival in mice bred...

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MARKETS & STRATEGY

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HEALTH INTELLIGENCE

TUESDAY, OCTOBER 13, 2026 · LONGEVITY & HEALTHSPAN DESK

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LONGEVITY & HEALTHSPAN · STANDARD READ · 3 MIN

NATURE · 2 SOURCES

Keto Diet Raised Small Intestine Tumors in Cancer-Prone Mice, MIT Finds

A ketogenic diet sped up tumor growth and shortened survival in mice bred to develop intestinal cancer, according to a new study in Nature, and the cause was not the ketones that the diet is named for.

This is animal research. The authors used mouse models of spontaneous intestinal adenoma formation, meaning the animals were genetically prone to developing these growths. The abstract, the only part of the paper available to us, does not give the number of animals. It also does not say how long the mice were fed the diets. No people were studied.

The question matters because ketogenic diets are popular for weight loss and are sometimes promoted for longevity. They are very high in fat and very low in carbohydrate. The researchers point out that obesogenic high-fat diets are already known to boost the activity of small-intestinal stem cells and tumor formation. Ketogenic diets contain even more fat, but they also lower circulating insulin and raise ketones. Their effect on intestinal cancer has been poorly understood.

According to the study, the ketogenic diet accelerated tumor burden and shortened survival, regardless of ketone metabolites. The team changed the ketone-making pathway in several ways. They blocked or boosted a key ketogenic enzyme, known as HMGCS2, and they disrupted the breakdown of ketones. None of these changes altered tumor development. That points away from ketones as the driver.

The evidence points instead to how intestinal cells handle dietary fat. When the researchers removed three related fat-sensing proteins (PPARα, PPARδ and PPARγ) from the intestine, the diet's effects on stem cells weakened. Stem cell expansion, proliferation and the ability to form colonies all dropped. Removing an enzyme called CPT1A, which is needed to burn fatty acids, limited adenoma formation specifically on the ketogenic diet. The authors conclude that tumor initiation is linked to burning dietary fat, not to fat simply building up.

The press coverage went further than the abstract in places. According to ScienceDaily, which summarized an MIT release, the small intestine and the colon responded in opposite ways. The ketogenic diet suppressed colon tumors in the mice. The coverage also says the keto-fed mice did not become obese, yet had tumor rates similar to or higher than mice on a high-fat, high-calorie diet. Those details are not in the abstract, so we cannot check them against the study text.

"Ketogenic diets have distinct effects on different tissues even within the gastrointestinal tract," senior author Omer Yilmaz of MIT told ScienceDaily. "What might be beneficial for one tissue may be detrimental for another tissue."

What does this mean for personal choices? The findings come from genetically engineered mice and may not carry over to people with ordinary cancer risk. The study does not show that keto causes cancer in humans. The authors single out people with familial adenomatous polyposis, an inherited condition with a high risk of small-intestinal tumors. They call for careful thought about diet and cancer prevention in genetically susceptible groups. Nobody should start or stop any diet, treatment or supplement without talking to their clinician, and that applies especially to anyone with an inherited intestinal cancer condition.

The study also bears on ketone supplements. According to ScienceDaily, because the effects tracked fat metabolism rather than ketones, ketone drinks would not be expected to reproduce either the harm in the small intestine or the benefit in the colon. That is the coverage's inference, not a test reported in the abstract.

The next step is to learn why the same diet pushes neighboring parts of the gut in opposite directions. Researcher Fangtao Chi told ScienceDaily that this is what the team is working on. Human data on ketogenic diets and intestinal tumors, especially in people with inherited risk, will be the key thing to watch.

Sources: Nature (2026), ScienceDaily (MIT; Nature)

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LONGEVITY & HEALTHSPAN · STANDARD READ · 2 MIN JAMA NEUROLOGY · 2 SOURCES

Study Projects 24.7 Million New Dementia Cases in 2050 if Rates Hold

About 24.7 million people worldwide could develop dementia in 2050, according to a new analysis in JAMA Neurology, if today's rates hold. The abstract gives no 2023 baseline, so we cannot say from it how much that figure exceeds today's, and the study finds the risk is not spread evenly across the globe.

The work is an observational study, not a trial. Researchers pooled individual-level data from 22 population-based cohorts in the Cohort Studies of Memory in an International Consortium (COSMIC). The cohorts included 38,418 people in 18 countries or territories on six continents. Participants were followed through the end of 2021. Observational work can show how often dementia occurs. It cannot show why.

Across 287,632 person-years of follow-up, 3,001 participants developed dementia. A person-year is one person followed for one year. All diagnoses were clinically based.

After adjusting for age and sex, the overall rate was 9.7 new cases per 1,000 person-years. The 95% confidence interval ran from 7.89 to 11.97. In plain terms, that is roughly 10 new cases for every 1,000 people followed for a year. The researchers standardized the figure to the 2023 global age and sex makeup of the population.

Women had a higher rate than men: 10.6 versus 8.6 per 1,000 person-years. Low- and middle-income countries had a higher rate than high-income countries: 13.6 versus 8.3. The confidence intervals in both comparisons overlap, so the exact size of these

gaps is uncertain. The abstract does not say whether the differences passed a formal test.

The 24.7 million figure comes from applying today's age- and sex-specific rates to the projected 2050 population. It assumes incidence stays constant over time. So it is a projection of what the same rates would mean in a larger and older world, not a forecast that individual risk will climb. Whether rates rise or fall is unknown. Because the abstract does not give the 2023 baseline, any claim that cases will "double" rests on a comparison we could not verify here.

The authors say many earlier estimates underrepresented low- and middle-income countries and used mixed methods. They describe these harmonized figures as a comparable benchmark. They say it can inform planning for prevention, diagnosis and memory-care services, especially in those underrepresented settings.

What does this mean for individuals? The study did not test any way of lowering dementia risk. It cannot say which habits or treatments help. What it does show is that dementia is common, and that the number of new cases will grow with ageing populations unless rates fall. Prevention planning is the use the authors point to. Advice on individual risk reduction is outside what this analysis tested, and this is the weakest point of any personal takeaway. The full text was not available to us, so details beyond the abstract are unverified.

Watch next for studies that track whether dementia incidence is falling or rising within countries over time. That would test the constant-rate assumption behind the 2050 projection.

Sources: JAMA Neurology (2026), Medical Xpress (reporting on JAMA Neurology, UNSW Sydney)

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LONGEVITY & HEALTHSPAN · STANDARD READ · 3 MIN NATURE MEDICINE · 2 SOURCES

Study of 300 Million Lab Tests Finds Abrupt Body Changes at Menopause

Menopause may change the body more suddenly than doctors have long thought. A new analysis of routine blood tests reports a sharp, step-like shift in several body systems at a woman's final menstrual period, and that finding is already being challenged.

The work was published in Nature Medicine in 2026. It is an observational, cross-sectional analysis of existing laboratory data from two independent cohorts, totalling 300 million laboratory tests. It is not a clinical trial. Nobody was assigned to a treatment, so the results show patterns, not cause and effect. We had access only to the study's abstract, so details beyond it are not covered here.

The problem the authors set out to solve is a practical one. Most of what we know about menopause comes from small studies that follow women over time. These have tended to describe menopause as a gradual transition. Large medical databases hold far more data, but they rarely record the age at which a woman had her final menstrual period. Without that, the data cannot be lined up around the event.

The researchers built a computational method, which they say was inspired by astronomy, to get around this. Women reach their final period at different ages. Averaging across them blurs any sharp change into a smooth slope. The method reconstructs trajectories anchored to the final period, removing that blurring.

Using it, the authors report a step-like physiological "cliff" at the final menstrual period. It appeared in the endocrine (hormone), skeletal, hepatic (liver), renal (kidney) and lipid (blood fat) systems. In plain terms, that covers sex hormones, bone, liver and kidney measures and cholesterol-type fats.

Three other findings stand out. The same jumps were absent in men. They were concordant across the two populations studied. And they appeared markedly attenuated in women using menopausal hormone therapy. The authors also report that dysregulation began more than a decade before the final period, with sex hormone changes starting more than 10 years before menopause.

FOR YOU

For personal health, the point is timing. If changes begin a decade or more early, the years before the final period may matter for bone and metabolic health, not only the years after. The abstract does not say what screening or treatment schedule should follow. That question is where the debate lies. Readers should not start or stop any medication or hormone therapy without speaking to their clinician.

ABC News (Australia), which reported on the study, quoted its lead, Uri Alon of the Weizmann Institute in Israel. According to ABC, he said bone density is usually checked around age 60, and that the findings would support checking around 40 or 45 and then considering hormone therapy as prevention, on a physician's advice. That recommendation comes from the coverage, not the abstract. The abstract reports that hormone therapy users showed smaller changes. It does not test whether starting therapy earlier protects bones.

Australian experts quoted by ABC were unconvinced by the framing. Martha Hickey of The Women's Hospital in Victoria said "physiological cliff is not a scientific or medical term" and called the claim "unnecessarily alarming". Elina Safro of the Australasian Menopause Society said the cliff idea is "not plausible". ABC noted that the study used existing data and self-reported information about the last period, unlike the long-running SWAN study, which was designed to follow women through the transition. Hickey described retrospective studies as "poor-quality" and not designed to answer this question, and Safro agreed. ABC also reported Hickey's caution that healthier women may be more likely to use hormone therapy, which could affect comparisons.

Where the critics and the study agree is on the value of earlier attention. ABC reported that Safro saw the early start of change as a reason to stay alert to health in midlife. Ada Cheung of the University of Melbourne said menopause is a good time to review bone health, cholesterol, blood pressure and blood sugar. Those points reflect the experts' views, not new findings.

WHAT TO WATCH NEXT

Alon told ABC his team is planning a clinical trial of hormone therapy started before the final period, which would be a far stronger test of whether earlier treatment protects bone and other systems.

Sources: Nature Medicine (2026), ABC News (Australia), reporting on a Nature Medicine study

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LONGEVITY & HEALTHSPAN · STANDARD READ · 3 MIN NATURE · 2 SOURCES

Gut Bacteria Fatty Acid C15:0 Halved Artery Plaque in Mice

A fatty acid made by a common gut bacterium cut artery plaque by around 50% in mice, according to a study in Nature. It is an early result, and it is not a reason for anyone to stop a prescribed statin, start a C15:0 supplement, or make any other change to their treatment without talking to their clinician.

This is animal research. The authors used a mouse model of atherosclerosis, the build-up of fatty plaque in artery walls. The abstract available to us does not give the number of animals, so we cannot report group sizes. The work also included human comparisons, but these were observational: they looked at differences between patients and healthy people, not at a treatment given to people.

The starting point was a known pattern. Bacteroides, a dominant genus in the human gut, is depleted in patients with atherosclerosis. Until now it was unclear whether that loss was a cause of the disease or just a sign of it. In mice, the researchers report, giving one species, Bacteroides uniformis, eased atherosclerosis. They link this to higher levels of the LDL receptor in the liver. That receptor pulls LDL cholesterol, the harmful kind, out of the blood.

The team then screened for the bacterium's active ingredient. They identified pentadecanoic acid, also called PA or C15:0. It is a saturated fatty acid with an odd number of carbon atoms. According to the study, PA supplementation reduced

plaque burden by around 50% and significantly improved plasma lipid profiles in the mice.

The proposed mechanism is familiar. The authors report that PA directly inhibits HMG-CoA reductase, the liver enzyme that statin drugs target. That slows the liver's own cholesterol production and helps clear LDL cholesterol from the blood. The authors describe this as gut–liver crosstalk, meaning chemical signals from gut microbes that change how the liver handles cholesterol.

Two further findings add context. Across 100 gut bacterial strains, PA production occurred in multiple genera within the Bacteroidota group, not just one species. And PA was markedly depleted in patients with dyslipidaemia, meaning unhealthy blood fat levels. That last finding is an association. It does not show that low PA causes high cholesterol, or that raising PA would fix it.

The study's own wording is cautious about benefit. It says the work underscores PA's "therapeutic potential" and that changing the microbial–metabolic axis has "atheroprotective potential". It does not claim a treatment.

The coverage went further in places. Lifespan.io, which reported on the paper, called the molecule a "natural statin". It also said atorvastatin, a widely used statin, worked noticeably better than C15:0 at the same dose in the mice. It added that C15:0 appears to be a weaker inhibitor of the enzyme. These comparisons come from Lifespan.io's account, not from the abstract we reviewed. Lifespan.io also noted, about the 12-week B. uniformis experiment, that results were compared with vehicle-fed controls at the end rather than with baseline. That shows slowed plaque growth, not necessarily reversal. We do not know whether the same applies to the C15:0 experiment.

That is why this matters for personal choices. C15:0 can be bought as a supplement, but nothing here shows that taking it helps people's arteries. Mouse doses, gut absorption and long-term safety in humans are all untested in this work. Lifespan.io put it plainly: "it is not clear that C15:0...is superior to statins in any way." Statins have large human trials behind them. Anyone prescribed one should talk to their doctor before changing it, and anyone considering a C15:0 supplement should talk to their clinician before starting it.

The more useful takeaway is the direction of the science. Gut bacteria may help set cholesterol levels through the molecules they make. If that holds up, it could eventually lead to new ways to support heart health. Lifespan.io quotes study co-

author Wenjing Zhao of Sun Yat-sen University as saying the findings underline new ways the microbiome might be harnessed to protect the heart. Lifespan.io itself adds that more studies, especially in humans, are needed.

WHAT TO WATCH NEXT

Human trials that test whether raising C15:0, or the bacteria that make it, lowers LDL cholesterol safely, and how that compares with statins.

Sources: Nature (2026), Lifespan.io (reporting on a study in Nature)

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LONGEVITY & HEALTHSPAN · STANDARD READ · 2 MIN SLEEP

AI Reading Heart Signals During Sleep Studies Predicts 10-Year Cardiovascular Risk

A night in a sleep lab already records the heart. Researchers now report that a computer model reading those rarely examined heart traces can help estimate a person's risk of atrial fibrillation, heart failure and early death over the next 10 years.

The work was published in the journal SLEEP in 2026. It is a retrospective study of patient records from three U.S. hospitals, not a trial. The model was fine-tuned on 15,809 patients at Massachusetts General Hospital. It was then tested on two separate groups: 9,810 patients at Emory University Hospital and 12,576 at Beth Israel Deaconess Medical Center. Outcomes came from electronic health records, using diagnosis codes.

The recordings come from polysomnography, the overnight test used to diagnose sleep disorders such as sleep apnea. During the test, a single-lead electrocardiogram (ECG) tracks the heart's electrical activity. According to the authors, these ECGs are recorded but rarely analyzed. Sleep disorders are recognized as risk factors for heart disease, so the team asked whether the data could do more.

The researchers used a deep learning model, a type of artificial intelligence, that had first been trained to detect arrhythmias, or abnormal heart rhythms. They combined its ECG analysis with information on sleep stages. The goal was to predict 10-year risk of atrial fibrillation, stroke, heart attack, heart failure and death from any cause.

The model's output was strongly associated with long-term risk ($p < .0001$). This held after the team adjusted for age, sex, body mass index, smoking, hypertension and diabetes. It also held after adjusting for sleep measures, including the apnea-hypopnea index, which counts breathing pauses, as well as arousals, limb movements, time in each sleep stage and sleep efficiency.

The sizes of the associations are reported as hazard ratios. A hazard ratio above 1 means a higher rate of the outcome. For each one-standard-deviation increase in the model's output, the hazard ratio for atrial fibrillation was 2.03 at Emory and 2.72 at Beth Israel Deaconess. For heart failure, it was 1.69 and 2.33. For death from any cause, it was 1.82 and 1.65.

Results for stroke and heart attack were weaker. The stroke hazard ratios were 1.19 and 1.40. For heart attack, they were 1.38 at Emory and 1.10 at Beth Israel Deaconess, and the second figure had a confidence interval (0.86 to 1.40) that includes no effect. The abstract does not describe the model as ready to predict these two outcomes.

What does this mean for someone referred for a sleep study? Nothing changes today. The abstract describes a research tool, and it does not say the score is available in clinics. The authors conclude that building such predictions into polysomnography could improve detection and support personalized clinical decision-making. That is the authors' proposal, not something this study has tested in patients.

There are limits. Only the abstract was available to us, so details such as how well the model separates high-risk from low-risk people are not known here. The outcomes came from health records and diagnosis codes, which can miss or misclassify cases. The study shows association, not that the score causes or changes anyone's outcomes.

The next test is whether acting on such a score leads to better outcomes for patients, and whether the model performs as well for stroke and heart attack.

Source: SLEEP (2026)

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HEALTH INTELLIGENCE
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MARKETS & STRATEGY · STANDARD READ · 2 MIN

INSURANCE BUSINESS

England and Wales Mortality Hits Record Nine-Month Low, Pressuring Annuity Pricing

People in England and Wales are dying at the lowest rate on record for the first three quarters of a year, and that is bad news for the firms that have promised to pay them pensions for life.

According to the latest update from the Continuous Mortality Investigation (CMI), cumulative standardised mortality to September 25 was 6.4% below the ten-year average for 2016 to 2025. The record holds for both males and females across nearly all age groups tracked by the monitor. The figure comes from the CMI's Q3 2026 mortality monitor, reported by Insurance Business.

The trend has run most of the year. Q1 2026 had lower mortality than any previous first quarter. The H1 update showed mortality 5.4% below the ten-year average through June. The Q3 data, which covers week 39, shows the gain held despite summer heatwaves that pushed deaths higher in parts of the period.

Respiratory causes stand out in the data. There were 944 deaths involving COVID-19 in the first 39 weeks of 2026. The same period saw 3,215 in 2025 and 7,591 in 2024. Deaths from influenza and pneumonia were around 54,900, against a range of roughly 62,900 to 67,500 over 2023 to 2025. The CMI does not attribute causes to changes in mortality rates, so the data shows where the improvement sits but does not explain it.

Steve Bale, chair of the CMI Mortality Projections Committee, said mortality across the third quarter was at a similarly low level to 2025. "Mortality for the first three quarters of the year is at record low levels in 2026 for most age groups considered in the mortality monitor," he said. Young males are the exception. Their mortality remains around 1% above the record low set in 2012, having been rising before the pandemic.

The market consequence runs through longevity models. According to the source, the CMI_2025 projections model, published earlier this year, already reflected 2025 data. It raised life expectancy at age 65 by around eight weeks for males and six weeks for females compared with the prior version. WTW estimated that scheme liabilities would rise by around 0.5% for schemes adopting it.

If 2026 mortality stays at its current level, the source says the CMI_2026 model is likely to face the same upward pressure on life expectancy projections. That would carry consequences for reserving and pricing. That is a projection, not a published result.

The effect differs by business line. Lower mortality reduces near-term claim volumes for protection writers. Annuity providers and longevity reinsurers face higher present values on guaranteed income streams they have already committed to pay.

The pressure arrives in a busy market. WTW's 2026 De-risking report forecast pension risk transfer volumes of about £70 billion for the year. That includes an estimated £50 billion in bulk annuities and up to £20 billion in longevity swaps. Both types of deal reference CMI projections, adjusted for each scheme's own experience. A further year of lower-than-expected mortality tightens the assumptions behind them.

What the source does not say is how any single insurer or scheme will respond, or how far pricing will move. Those answers depend on each party's own experience data and model choices.

The next marker to watch is the publication of the CMI_2026 model, and whether it lifts life expectancy again as the 2026 data suggests it might.

Source: Insurance Business (citing the Continuous Mortality Investigation)

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MARKETS & STRATEGY · STANDARD READ · 1 MIN RENAISSANCE CAPITAL

Parkinson's Stem Cell Developer Aspen Neuroscience Files for Nasdaq IPO

Aspen Neuroscience, a San Diego company that makes a Parkinson's cell therapy from a patient's own skin cells, has filed publicly for a Nasdaq IPO, according to Renaissance Capital. The therapy, sasineprocel, is investigational and not approved or available outside clinical trials.

The company filed on October 9, 2026, after a confidential submission on March 30, 2026. It plans to trade under the ticker ASPE. Renaissance Capital estimates the deal at up to $100 million. Leerink Partners, Piper Sandler and Stifel are the bookrunners.

Aspen's lead product is sasineprocel. According to the source, it is a single-dose therapy designed to replace the dopamine-producing neurons lost in Parkinson's disease. It is made from the patient's own cells.

The product holds two FDA designations, RMAT and Fast Track, according to the source. As of August 18, 2026, 15 patients had been dosed in an open-label Phase 1/2a trial. Open-label means patients and doctors know what is being given.

The company says that, after FDA feedback, it expects to dose its first Phase 3 patients in the second half of 2027. Renaissance Capital lists Aspen as founded in 2018, with about 120 employees.

For investors, the offering is a direct test of appetite for a regenerative approach in an age-related neurodegenerative disease. The company is selling shares with only 15 patients dosed and a pivotal trial still ahead. The size of the raise, the pricing and the demand will show how much weight the market gives to early data and regulatory designations at this stage. Those outcomes are not yet known. Readers with Parkinson's should not start or stop any medication or treatment without consulting their clinician.

WHAT TO WATCH NEXT

Whether Aspen sets a price range and completes the listing, and what FDA feedback means for its Phase 3 timing.

Source: Renaissance Capital

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MARKETS & STRATEGY · STANDARD READ · 1 MIN MARKET IMPACT · INVESTING.COM

IMF Says AI Productivity Gains Could Outweigh Asia's Aging-Driven Workforce Decline

Asia's aging populations may not drag down its growth if artificial intelligence delivers, according to the International Monetary Fund. This account rests on a secondhand summary of Investing.com's report, because the underlying page could not be fetched.

On October 12, 2026, IMF Managing Director Kristalina Georgieva launched an IMF book on Asia's economic outlook, as reported by Investing.com. The book names three forces reshaping the region: demography, economic integration and technology.

According to the IMF, AI could add 0.5 to 1 percentage point to growth in Asia's advanced economies. The IMF says that if countries capture those productivity gains, "these benefits will more than compensate for demographic pressures." Those pressures include aging populations and shrinking workforces.

The IMF attaches a condition. The gains depend on AI adoption spreading evenly across Asia, rather than widening the gaps that already exist between nations.

For markets and strategy, the point is that the IMF frames the outcome as one of adoption, not just technology. It is our inference, not the IMF's stated view, that countries falling behind would struggle to offset their labor losses. The report as

summarized does not specify which economies are best placed, or what policies the IMF recommends.

WHAT TO WATCH NEXT

Whether the IMF's full analysis shows how adoption is spread across Asian economies, and whether the gap between leaders and laggards narrows or widens.

Source: Investing.com (reporting on IMF)

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MARKETS & STRATEGY · STANDARD READ · 3 MIN UCSF NEWS

UCSF Details How FDA's Bone Density Endpoint Will Shrink Osteoporosis Trials

A late-stage osteoporosis trial that once needed up to 15,000 patients may now need about 750. According to UCSF News, that is the effect of an FDA decision that lets drug developers use changes in hip bone density, rather than fractures, as the main measure of success.

This article is based on UCSF News' report of the research. The underlying paper was not reviewed. Readers should not start or stop any osteoporosis treatment without talking to their clinician.

The scale of the change is large. According to UCSF News, a typical Phase 3 trial has enrolled 6,000 to 15,000 patients for three to five years, so that enough fractures occur to judge whether a drug works. Under the new approach, trials can enroll about 750 patients and follow them for a year and a half to two years.

For now, the change covers trials in postmenopausal women with osteoporosis, UCSF News reports. The FDA made the decision late last year.

The market logic is plain, though it is interpretation rather than reporting. Smaller and shorter pivotal trials should cost less. A lower cost of entry could draw in new bone-drug developers, including smaller firms that could not fund a multiyear

fracture trial. It could also create openings for licensing deals and acquisitions. UCSF News does not make these forecasts itself.

What UCSF News does report is that development had stalled. Dennis Black, PhD, a UCSF professor of epidemiology and biostatistics and co-lead of the SABRE Project, said the most recent osteoporosis drug approval was romosozumab in 2019. He said no new drugs have entered the pipeline since then because of the expense and time required. "Everything just stopped," he said.

The demand side is sizable. According to UCSF News, osteoporosis affects about 10 million Americans over age 50, including 1 in 5 women. The report says the share of Americans 65 and older is expected to rise from 18.9% to 23.4% by 2060.

The evidence behind the decision came from SABRE, the Study to Advance Bone Mineral Density as a Regulatory Endpoint. UCSF News describes it as a public-private collaboration of academia, the National Institutes of Health, the FDA, industry and nonprofits. Black said the team assembled data from more than 50 randomized trials involving about 170,000 patients, much of it held by private companies.

Black said the analysis found a strong link between larger bone density gains and larger fracture reductions. According to UCSF News, when a drug raised bone density above a certain threshold, there was more than a 95% chance it reduced fractures. He said this held across drugs that work in different ways, some slowing bone breakdown and others building bone.

Incumbents may face more competition. Black said new drugs could differ in dosing, duration and side effects, and that more competition could mean lower prices and better access. He framed this as a hope, not a certainty. Existing drugs work, he said, but some patients have rare side effects or find dosing inconvenient.

The precedent may matter beyond bones. UCSF News describes bone density as the first surrogate endpoint the FDA has formally qualified in any therapeutic area since its formal biomarker qualification process began. Black said the acceptance could set a precedent for faster development in areas such as cancer or Alzheimer's disease. That is his view. The report does not say whether the FDA will treat other endpoints the same way.

UCSF News describes the change as more than a decade in the making. Black named two hurdles: gathering the data and moving through an FDA process with no close precedent and several levels of review. Other disease areas would likely face similar work.

Watch for the first pivotal osteoporosis trials designed around the bone density endpoint. The UCSF report does not say whether any are under way, so the first announcements and financing deals will show how quickly the market responds.

Source: UCSF News

IN THIS EDITION · MARKETS & STRATEGY

1. England and Wales Mortality Hits Record Nine-Month Low, Pressuring Annuity Pricing
2. Parkinson's Stem Cell Developer Aspen Neuroscience Files for Nasdaq IPO
3. IMF Says AI Productivity Gains Could Outweigh Asia's Aging-Driven Workforce Decline
4. UCSF Details How FDA's Bone Density Endpoint Will Shrink Osteoporosis Trials
5. **Tiny Health Raises $33 Million Series B as Adult Microbiome Testing Overtakes Pediatric**

MARKETS & STRATEGY · STANDARD READ · 1 MIN

MARKET IMPACT · LONGEVITY.TECHNOLOGY

Tiny Health Raises $33 Million Series B as Adult Microbiome Testing Overtakes Pediatric

A company that began by testing babies' guts now sells more tests to adults. Tiny Health, based in Austin, has raised a $33 million Series B, according to Longevity.Technology.

B Capital Group led the round. Total funding now stands at $46 million. Other investors include Spero Ventures, The Venture City, Overwater Ventures and new backers, according to the source.

The shift in customer mix is the strategic point. Adult testing volumes now exceed pediatric volumes, according to the report. Longevity.Technology reports that nearly 200,000 customers and more than 6,000 healthcare practitioners use the platform.

The company has added longevity-focused products, including Gut Microbiome Age and Gut Resilience scores, according to Longevity.Technology. The source does not say how these scores are calculated or validated, and the notes do not address regulatory treatment.

Its business-to-business arm, called Powered by Tiny, grew fourfold last year, according to the source. That suggests practitioners and partners are a growing sales channel alongside direct consumers. The notes give no revenue figures, so the scale

of that growth is unclear.

CEO Cheryl Sew Hoy said, according to the source: "no one else was building for the whole lifespan." That is the company's own account of its positioning. The notes do not assess competitors.

WHAT TO WATCH NEXT

Whether Tiny Health discloses revenue or evidence supporting its new longevity scores as it deploys the new capital.

Source: Longevity.Technology

The Arising

HEALTH INTELLIGENCE

TUESDAY, OCTOBER 13, 2026 · BRIEFS

IN THIS EDITION · BRIEFS · 167 SHORT STORIES IN 18 TOPICS

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Each brief is a short summary of one published study, preprint, registered trial or news report, checked against its source by a second reviewer. These are for information only and are not medical advice.

VO2 MAX & ZONE 2 TRAINING 9

Eye lens density is higher in people with acromegaly than in healthy controls

A prospective observational study in the Indian Journal of Ophthalmology compared 40 people with acromegaly and 40 healthy volunteers. Imaging showed higher lens density in the acromegaly group. Density also rose alongside IGF-1 and growth hormone levels. This is an observational link, so it cannot show that the hormones caused the lens changes.

INDIAN JOURNAL OF OPHTHALMOLOGY · 2026-10-02

Heart rate variability differs by age and sex in children and adolescents

A study in Physiological Reports measured resting heart rate variability in 35 children and 29 adolescents using five-minute electrocardiograms. Females had lower linear variability. Some nonlinear measures differed by age and sex, and they correlated with linear indices of parasympathetic tone. The authors say further research is needed on the mechanisms.

PHYSIOLOGICAL REPORTS · 2026-10-01

Eye-tracking study maps two-dimensional eye movements in infantile nystagmus

A study in Investigative Ophthalmology & Visual Science tracked the eyes of 17 people with infantile nystagmus, a condition of eye oscillations. It measured fixation at nine horizontal gaze positions. Fixation accuracy and precision varied between participants. The authors say the oscillations are highly individual and that fixation precision may affect preferred gaze position.

INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE · 2026-10-01

Network meta-analysis compares supplements' effects on jump and power in active people

A systematic review and Bayesian network meta-analysis in the Journal of the International Society of Sports Nutrition included 119 randomised trials in healthy people with physical activity or training backgrounds. Versus placebo, HMB showed higher peak power and relative peak power. Beta-alanine, creatine, vitamin D, iron and betaine also showed favourable effects on some measures. Iron's jump result rested on one direct study.

JOURNAL OF THE INTERNATIONAL SOCIETY OF SPORTS NUTRITION · 2026-10-01

Study examines adolescent step counts, brain structure, mental health and schooling

A cohort study in JAMA Network Open used data from the US Adolescent Brain Cognitive Development Study, with pedometer-measured average daily steps over three weeks. Researchers examined associations of step count with brain structure, and with mental health and academic performance one year later, and whether brain differences statistically mediated those links. The available text does not report the findings. The design shows association, not cause.

JAMA NETWORK OPEN · 2026-10-01

Two types of posterior cingulate epilepsy show different seizure spread patterns

A small study of 18 patients, published in CNS Neuroscience & Therapeutics, compared two forms of epilepsy. Brain recordings showed seizures from the retrosplenial cortex spread more strongly toward nearby memory-related temporal areas. Those patients also scored worse on visual recall. The authors suggest this pattern could help tell the subtypes apart.

CNS NEUROSCIENCE & THERAPEUTICS · 2026-10-01

Exercise test for children with asthma shows excellent repeat reliability

A multicentre cross-sectional study in Pediatric Pulmonology tested the Modified Shuttle Test in 123 children aged 6 to 12 with asthma. Repeat results were highly consistent. Distance was lower on the second test, but the authors found no evidence of a consistent learning effect. They judged measurement error acceptable.

PEDIATRIC PULMONOLOGY · 2026-10-01

School high-intensity sports programme improved some fitness measures in Danish children after one year

A cluster-randomised trial in the Scandinavian Journal of Medicine & Science in Sports covered 1,652 pupils aged 10 to 13 in 30 Danish schools. Those given the FIT FIRST 20 programme improved more in cardiorespiratory fitness, agility and lower-body power than controls. Most other fitness and psychological measures showed no difference between groups.

SCANDINAVIAN JOURNAL OF MEDICINE & SCIENCE IN SPORTS · 2026-10-01

Enhanced Games athletes mostly did not beat records or personal bests

A retrospective analysis in Physiological Reports covered 42 athletes at the Enhanced Games, an event built around performance-enhancing drugs. One world record was broken. Nineteen personal bests were set. On average, results were worse than earlier personal bests. The authors report the drug protocols did not slow age-related performance decline.

PHYSIOLOGICAL REPORTS · 2026-10-01

Review proposes five functional types of lung immune cells called alveolar macrophages

A review in MedComm covers alveolar macrophages, immune cells that patrol the lungs. The authors say the older two-type model does not capture their variety. They propose five functional subtypes. They also discuss links to asthma, COPD, acute lung injury and pulmonary fibrosis. They describe possible treatment directions. This is a review, not new trial data.

MEDCOMM · 2026-10-04

Immune memory in white blood cells is limited in premature infants

A study in MedComm compared immune cells called monocytes from adults, full-term infants and preterm infants. Preterm infants' cells showed weaker "trained immunity", a form of innate immune memory. The cells also had metabolic and gene activity differences. The authors suggest immaturity limits this response. The clinical group was small.

MEDCOMM · 2026-10-04

Study tests ChatGPT-4o at proposing fungus and cervical cancer hypotheses

A study in Antonie van Leeuwenhoek asked ChatGPT-4o to generate hypotheses linking fungal factors, HPV persistence and cervical cancer. It produced 55. Three of the study's own authors, with expertise in pathology, oncology and microbiology, rated 35 high and 20 moderate. No matching publication was found for 48, which the authors call underexplored, not proven novel. There was no human-generated hypothesis set or alternative language model for comparison.

ANTONIE VAN LEEUWENHOEK · 2026-10-04

Review maps how cancer spreads and where treatments fall short

A review in MedComm describes metastasis as a process driven by the evolution of cancer cells and pressure from their surroundings, not just accumulating gene changes. It covers spread via blood, lymph and nerves, and the limits of current diagnosis and treatment. The authors argue for therapies matched to timing, route and biomarkers.

MEDCOMM · 2026-10-02

Telomere-linked RNA pathway drives cancer-supporting fibroblasts in lab and animal models

A study in Science Advances examined cancer-associated fibroblasts, cells that support tumours. The RNA molecule TERRA was elevated in these cells in skin, lung and breast tumours. It works with a protein called NONO to change gene activity. Blocking either one reversed fibroblast activation and curbed tumour-stroma interactions in cell and animal experiments.

SCIENCE ADVANCES · 2026-10-02

Liver cell nucleus glycogen handling is impaired in two metabolic liver conditions

A study in Science Advances found glycogen stored in the nucleus of liver cells in mice and people with argininosuccinic aciduria, a rare inherited metabolic disorder. Nitric oxide appeared to control how an enzyme reaches the nucleus. Similar changes were seen in rodent and human fatty liver disease. The work is mostly in mice and tissue samples.

SCIENCE ADVANCES · 2026-10-02

Review examines resveratrol-loaded alginate hydrogels for cancer treatment and wound healing

A review in Discover Nano surveys research on alginate hydrogels carrying resveratrol, a plant compound. Resveratrol has shown encouraging results for cancer and wounds, but poor solubility and fast elimination limit clinical use. The review covers how the gels are made and how they release the compound. It does not report a new human trial.

DISCOVER NANO · 2026-10-02

Review links mitochondria to how lung tumours respond to immune therapy

A review in Oncology Reports looks at non-small cell lung cancer. It describes how mitochondrial processes may shape whether tumours are immune-desert, immune-excluded or immune-inflamed. These types are linked to different responses to checkpoint inhibitors. The authors say human evidence is mostly correlative and call for more prospective studies.

ONCOLOGY REPORTS · 2026-10-02

Blood cell mix explains much of epigenetic clock age estimates

A study in Genome Medicine analysed 4,058 samples and found up to 53% of the variation in DNA methylation age could be attributed to blood cell counts. Links with age acceleration were weaker. Cell composition modestly weakened associations with 176 later health outcomes. The authors say the two measures partly reflect different biological processes.

GENOME MEDICINE · 2026-10-02

Review outlines how gasdermin proteins drive inflammatory cell death and possible treatment targets

A review in Signal Transduction and Targeted Therapy covers gasdermin proteins, which carry out an inflammatory form of cell death called pyroptosis. It discusses their roles in infection, autoimmune disease and cancer, and some drugs that target them. The authors describe therapeutic potential, but this is a review, not a test in patients.

SIGNAL TRANSDUCTION AND TARGETED THERAPY · 2026-10-02

Pituitary tumour case turned hormone-active more than two decades after surgery

A case report in JCEM Case Reports describes a woman in her early 30s with a pituitary tumour that showed no hormone excess. More than 20 years after surgery, her ACTH hormone rose, and Cushing disease followed years later. The authors say long-term hormone monitoring matters. This is a single case, so it cannot show how often this happens.

JCEM CASE REPORTS · 2026-10-01

Blood protein and other ageing markers tied to higher death risk in older adults

An observational study in Aging Cell followed 861 people in the Lothian Birth Cohort 1936 for 16 years. Faster ageing of the liver, immune system and heart, estimated from blood proteins, was linked to higher death risk. Epigenetic age, brain volume, lung function and cognition showed somewhat stronger links. These are associations, not proof of cause.

AGING CELL · 2026-10-01

FASTING, AUTOPHAGY & METABOLIC HEALTH 9

Review maps four barriers that keep immune cells from fighting tumours

A review in MedComm examines how immune cells behave inside tumours. The authors group the obstacles into four: poor access, poor recognition, failure to keep working, and harmful tissue changes. They use one gene regulator, FOSL2, as an example. They note the evidence varies by tumour type and model, and call for further validation.

MEDCOMM · 2026-10-04

Fat-handling gene loss linked to immune suppression in colorectal cancer models

A laboratory study in Advanced Science examined colorectal cancer. When tumour cells lacked a gene called SLC25A20, they released fatty acids. These appeared to push immune cells called neutrophils to suppress T cells. Blocking this pathway restored anti-tumour immunity in the experiments. The text does not describe results in patients.

ADVANCED SCIENCE (WEINHEIM, BADEN-WURTTEMBERG, GERMANY) · 2026-10-04

Lab study links lactate-driven CD112 change to tumour escape from immune cells

A study in Advanced Science reports that a chemical change called lactylation stabilises the protein CD112 on tumour cells. This helps tumours evade both CD8+ T cells and NK cells. Disrupting the process suppressed tumour growth. The authors suggest CD112 lactylation could be a biomarker for combination immunotherapy. The text does not describe human trial results.

ADVANCED SCIENCE (WEINHEIM, BADEN-WURTTEMBERG, GERMANY) · 2026-10-04

Review examines iron- and copper-linked cell death in blood cancers

A review in Apoptosis discusses ferroptosis and cuproptosis, two forms of cell death tied to iron and copper, in blood cancers. The authors say these cancers can evade apoptosis but may remain vulnerable to other death pathways. They note treatments are in development and that biomarker standardisation and trial design remain challenges.

APOPTOSIS : AN INTERNATIONAL JOURNAL ON PROGRAMMED CELL DEATH · 2026-10-03

Review of animal studies: stem cell microRNAs may protect the brain

A systematic review in Molecular Neurobiology covered 37 preclinical studies on Parkinson's, Alzheimer's and stroke. Several microRNAs delivered by mesenchymal stem cells were linked to less inflammation and fewer disease markers in animal models. They were also linked to better motor and cognitive outcomes. These are animal findings, not human trial results.

MOLECULAR NEUROBIOLOGY · 2026-10-03

Experimental drug fadraciclib reduces glioblastoma cell survival in lab models

A laboratory study in Cell Communication and Signaling tested fadraciclib, a CDK2/9 inhibitor, in glioblastoma cell cultures, spheroids and patient-derived organoids. It reduced cell viability and invasion, and outperformed standard temozolomide in these models. It also crossed a model blood-brain barrier. This is preclinical work, not evidence in patients.

CELL COMMUNICATION AND SIGNALING : CCS · 2026-10-02

Review surveys BTK-blocking drugs across blood cancers and immune diseases

A review in MedComm covers drugs that block Bruton's tyrosine kinase, a protein involved in immune-cell signalling. It describes how they work, how resistance arises and how they are combined with other therapies. It also discusses uses in solid tumours and autoimmune diseases. This is a summary of existing research, not new trial data.

MEDCOMM · 2026-10-02

Review links iron, copper, zinc and calcium imbalances to range of diseases

A review in MedComm covers iron, copper, zinc and calcium in health and disease. It describes problems from both too little and too much of each metal. Iron deficiency is called the leading global micronutrient shortfall. The authors note a narrow gap between deficiency and toxicity. They call for better biomarkers. It is a review, not new trial data.

MEDCOMM · 2026-10-02

Tirzepatide eased heart blood-vessel damage in diabetic mice and cell experiments

A study in the European Journal of Pharmacology tested tirzepatide in diabetic mice and human heart blood-vessel cells. In mice, it improved some blood sugar and lipid measures and reduced heart dysfunction, scarring and vessel injury. In cells, effects were weaker when the PRKN gene was partly silenced. This is animal and lab work, not human data.

EUROPEAN JOURNAL OF PHARMACOLOGY · 2026-10-02

Lab study links gut receptor NK2R to fat handling and inflammation

A study in eLife used genetic and drug experiments to examine the NK2R receptor in the gut. Losing or blocking NK2R raised blood fats after meals and expanded gut fat stores. Activating it reduced fat mass and improved blood sugar in diet-induced obesity. Loss of NK2R gave male-biased protection from colitis. These are laboratory findings, not tested in people.

ELIFE · 2026-10-05

Review links air pollution to lung cancer and examines early biomarkers

A review in Carcinogenesis summarises research on air pollution and lung cancer. It states that pollution is responsible for more than 14% of global lung cancer deaths. It describes how pollutants may drive early tumour development through DNA damage, chronic inflammation and immune evasion. It also covers early biomarkers and possible chemopreventive targets, and calls for clinical validation of both.

CARCINOGENESIS · 2026-10-05

Forsythia extract eased colitis in mice, linked to gut bacteria and palmitic acid

According to a study in the International Journal of Biological Macromolecules, polysaccharides from Forsythia reduced gut injury and inflammation in a mouse model of colitis. The work points to a gut-bacteria-linked fatty acid, palmitic acid, and an inflammatory signalling pathway. This is animal and lab research. It does not show an effect in people.

INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES · 2026-10-04

Review asks whether gut bacteria influence cognition and decision-making

A review in Gut Microbes discusses how gut bacteria and their metabolites communicate with the brain. It describes possible effects on the blood-brain barrier, inflammation and stress hormones. The authors pose the question of whether these signals affect cognition and decision-making. It is a discussion piece, not evidence of cause.

GUT MICROBES · 2026-10-03

Review links immune proteasome to tau buildup and brain cell ageing in Alzheimer's

A review in Inflammopharmacology discusses the immunoproteasome, a protein-clearing complex, in Alzheimer's disease. The authors say chronic activation in microglia may fuel inflammation, senescence and tau spread. They note preclinical studies suggesting partial modulation, rather than full inhibition, may reduce tau pathology. The evidence summarised is mostly from preclinical work.

INFLAMMOPHARMACOLOGY · 2026-10-03

Gut bacterial toxin system helps one strain persist in wild mouse microbiome

According to a study in eLife, a bacterium from wild mice uses a toxin-delivery system to antagonise neighbouring bacteria. Without it, the strain could still colonise but was not maintained over the long term. When another species received the system, it gained short-term benefits but later declined. This was research in mice, not people.

ELIFE · 2026-10-02

Review outlines genetic and lifestyle factors in Alzheimer's disease and emerging treatments

A review in Neurodegenerative Disease Management covers literature from 2000 to 2025 on Alzheimer's disease. It lists genes such as APOE4 and risk factors including ageing, obesity, head injury, drinking and smoking. The authors say factors beyond amyloid and tangles contribute. They suggest targeting these could help slow progression, though a review cannot prove this.

NEURODEGENERATIVE DISEASE MANAGEMENT · 2026-10-02

Gut microbes may influence glioblastoma, but evidence remains limited

A narrative review in MicrobiologyOpen examines links between microbes and glioblastoma, a hard-to-treat brain cancer. Preclinical work suggests several plausible pathways. Human studies are limited and prone to confounding. Bacterial traces found in tumours do not prove colonisation or a gut origin. The authors call microbes plausible modifiers, not established drivers.

MICROBIOLOGYOPEN · 2026-10-01

Genetic analysis links higher TNF-beta levels to better muscle measures

A Mendelian randomization study in Medicine tested 91 circulating inflammatory factors against four muscle-loss traits. Tumor necrosis factor-beta was associated with all four: lean mass, grip strength on both sides and walking pace. The authors call it a possible protective factor. The effect sizes were small, and this is genetic analysis, not a trial.

MEDICINE · 2026-10-01

Case report follows one woman with brainstem bleed given integrative Korean medicine care

A case report in the journal Medicine describes one 48-year-old woman with a massive brainstem hemorrhage. She received conventional treatment plus Korean medicine, including herbal medicines and acupuncture, for two years. The authors report neurological improvement and infection control. A single case cannot show that the treatment caused these outcomes.

MEDICINE · 2026-10-01

Probiotic strain softened stools in adults with constipation in an 8-week trial

According to a randomised, double-blind, placebo-controlled trial in Food Science & Nutrition, 87 adults with functional constipation took a Pediococcus acidilactici strain or placebo for 8 weeks. The probiotic group had better stool form scores. Bowel movement frequency did not differ significantly between groups. No adverse events were reported. The authors say frequency effects need further study.

FOOD SCIENCE & NUTRITION · 2026-10-01

Many people with irritable bowel syndrome show food-avoidance eating patterns

A study in Neurogastroenterology and Motility assessed 326 adults with irritable bowel syndrome at one hospital. Using a screening questionnaire, 47.5% had ARFID-like symptoms. With medical chart criteria, 33.4% met DSM-5-compatible ARFID. Depressive symptoms were independently associated with both. This is an association in a single-centre sample.

NEUROGASTROENTEROLOGY AND MOTILITY · 2026-10-01

US pneumonia hospitalisation trends depend on which diagnosis codes researchers count

A retrospective study of US healthcare claims from 2014 to 2023, published in Pneumonia, compared ways of counting adult pneumonia and influenza hospitalisations. Counting only the principal code showed the largest decline. A broader definition showed steadier rates. The authors say principal-code-only counts may understate disease. Most hospitalised adults aged 65 and over had at least one risk factor.

PNEUMONIA (NATHAN QLD.) · 2026-10-05

Small breast cancer trial finds some responses to two-drug combination

A small single-arm study in MedComm tested disitamab vedotin plus penpulimab before surgery in 20 patients with HER2-low breast cancer. Four of 20 had no detectable cancer at surgery. Serious side effects occurred in 25%. Responders had more active immune features in their tumours. The authors say the findings are preliminary and need larger randomised trials.

MEDCOMM · 2026-10-04

Multisensory rooms eased mood and pain during sessions in care home residents

A quasi-experimental study in Clinical Gerontologist tested Snoezelen multisensory rooms in long-term care residents, with and without dementia. Eight sessions ran over four weeks. Mood, emotional expression and pain perception improved after individual sessions. No before-and-after effects appeared across the whole intervention period. Interviews with participants and staff supported the session findings.

CLINICAL GERONTOLOGIST · 2026-10-04

Nutrition counselling linked to less drinking in older adults with mild cognitive impairment

A secondary analysis of a randomised trial, published in BMC Public Health, looked at 189 older adults with mild cognitive impairment who drank alcohol. After 12 months, alcohol intake had fallen in both nutrition counselling groups. The two diets did not differ significantly. The counselling was not focused only on alcohol.

BMC PUBLIC HEALTH · 2026-10-03

Older adults with hip fracture and mental health conditions had higher infection rates

A Danish registry cohort study in European Geriatric Medicine followed 100,335 people aged 65 or older after hip fracture surgery, plus 498,943 matched people without fracture. Those with hip fracture and mental health conditions had higher 30-day infection risk than comparators. The authors report the two factors interacted, raising risk by more than 30%.

EUROPEAN GERIATRIC MEDICINE · 2026-10-03

Machine-learning model shows modest accuracy at identifying mild cognitive impairment in older adults

A study in Acta Psychologica built machine-learning models to identify mild cognitive impairment in older adults with chronic conditions, using survey data from the CHARLS study. The leading model had an AUROC of 0.692 on internal validation, which is modest. The study also tested the model on a later survey wave. The text provided is cut off before those results.

ACTA PSYCHOLOGICA · 2026-10-03

Review links type 2 diabetes to higher risk of cognitive decline and dementia

A review in Applied Neuropsychology summarises studies suggesting type 2 diabetes is linked to a higher risk of mild cognitive impairment and dementia. It points to insulin resistance, high blood sugar and inflammation as possible factors. The authors note a research gap in interventions and call for biomarkers to predict cognitive problems early.

APPLIED NEUROPSYCHOLOGY. ADULT · 2026-10-03

Four factors predicted death in acute limb ischaemia patients at one hospital

A retrospective record review in the International Journal of Vascular Medicine covered 140 patients with acute limb ischaemia at Waikato Hospital in New Zealand. Mortality was 19% at 30 days and 31% at one year. The authors identified four independent predictors of death and suggest they could prompt earlier palliative care referral.

INTERNATIONAL JOURNAL OF VASCULAR MEDICINE · 2026-10-02

Computer analysis compares how three antidepressants may act on the body

A computational study in Depression and Anxiety used public databases and molecular docking to compare amitriptyline, mirtazapine and escitalopram. It found 48 overlapping drug targets and pathways such as the serotonergic synapse. Amitriptyline was predicted to bind MAOB most strongly. These are computer predictions, with no patients or lab experiments.

DEPRESSION AND ANXIETY · 2026-10-02

Large English survey links loneliness to age, being single, unemployment and disability

A cross-sectional study in BMC Global and Public Health analysed data from 135,725 adults in England. Younger age, being single, unemployment and disability were associated with more loneliness. Having nine or more friends was associated with much lower odds. Volunteer participants and a single time point mean these are associations, not causes.

BMC GLOBAL AND PUBLIC HEALTH · 2026-10-02

Review of predicting brain outcomes after cardiac arrest proposes hospital protocol

A narrative review in Arquivos de Neuro-Psiquiatria summarises how doctors predict neurological outcomes after cardiac arrest. Reliable signs of poor outcome include absent brainstem reflexes at 72 hours, persistent EEG suppression, bilateral absence of cortical N20 potentials and diffuse MRI abnormalities. The authors also propose a protocol for one Brazilian hospital. The protocol is a proposal, and no results from its use are reported.

ARQUIVOS DE NEURO-PSIQUIATRIA · 2026-10-02

Plant extract lowers amyloid beta production in lab-grown brain cells

According to a study in Planta Medica, an extract from Ruscus aculeatus reduced amyloid beta production in human neural progenitor cells and mouse neuroblastoma cells. The extract also raised levels of an active enzyme form, ADAM10. This was cell work only. The authors say it may reduce plaque formation, but that was not tested in people.

PLANTA MEDICA · 2026-10-02

Cervical test using DNA methylation worked better after menopause than before

A retrospective study in Annals of Medicine analysed 705 women undergoing colposcopy, 192 of them postmenopausal. PAX1 and JAM3 methylation markers detected high-grade cervical lesions with higher sensitivity in postmenopausal women (90.0% and 82.5%) than in premenopausal women (62.0% and 60.3%). Missed rates in triage were higher before menopause. The markers outperformed cytology and HPV16/18 testing in both groups.

ANNALS OF MEDICINE · 2026-10-04

Review catalogues 120 genome regions linked to polycystic ovary syndrome

A review in Fertility and Sterility covers genetic studies of PMOS, formerly called PCOS. It identified 17 genome-wide studies that together found 120 regions associated with the condition. Thirty-eight appeared in at least two cohorts. The genes involved relate to hormones, ovary function, insulin signalling and cardiometabolic disease. These are associations, not proven causes.

FERTILITY AND STERILITY · 2026-10-02

Commentary explores digital health tools for menopause in women with learning disability

A commentary in Post Reproductive Health notes that fitness trackers and health apps are popular, but none consider women with a learning disability going through menopause. The authors discuss how female-focused digital technology might benefit this group and which issues would need addressing. It is an opinion piece, not a study with results.

POST REPRODUCTIVE HEALTH · 2026-10-02

Blood levels of 27HC, estrone and SHBG linked to survival after breast cancer

An observational study in Cancer Epidemiology, Biomarkers & Prevention followed 1,009 postmenopausal women later diagnosed with breast cancer. Higher 27-hydroxycholesterol was linked to lower all-cause mortality. Higher estrone was linked to lower breast cancer death. Higher SHBG was linked to higher all-cause mortality. These are associations, not proof of cause.

CANCER EPIDEMIOLOGY, BIOMARKERS & PREVENTION : A PUBLICATION OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH, COSPONSORED BY THE AMERICAN SOCIETY OF PREVENTIVE ONCOLOGY · 2026-10-02

Dental 3D scans examined as a possible clue to bone density in postmenopausal women

A cross-sectional study in Clinical and Experimental Dental Research looked at 63 postmenopausal women aged 50 to 70. Researchers compared image measures from routine dental scans with bone density from DEXA scans. DEXA classed 49.2% as normal, 34.9% as osteopenic and 15.9% as osteoporotic. The text is cut off before the main findings on the link.

CLINICAL AND EXPERIMENTAL DENTAL RESEARCH · 2026-10-01

Women with recurrent UTIs describe a lack of support from healthcare

A qualitative study in Health Expectations ran focus groups with 25 women who reported recurrent urinary tract infections. They described the condition as debilitating and felt healthcare did not support them. Many worried about antibiotic use but were reluctant to stop preventive antibiotics that worked. They wanted more continuity of care and guidance on options.

HEALTH EXPECTATIONS : AN INTERNATIONAL JOURNAL OF PUBLIC PARTICIPATION IN HEALTH CARE AND HEALTH POLICY · 2026-10-01

Case report describes androgen insensitivity syndrome found in a 29-year-old

A case report in the journal Medicine describes one 29-year-old woman with absent periods and abdominal pain. Tests showed a 46,XY karyotype, testicular tissue and no uterus. The diagnosis was clinically consistent with complete androgen insensitivity syndrome, though genetic confirmation was unavailable. Surgery found no malignancy. Her symptoms and wellbeing improved afterward.

MEDICINE · 2026-10-01

Small case series reports skin gains after hyaluronic acid injections in women

A case series in the Journal of Drugs in Dermatology followed 10 women, five premenopausal and five postmenopausal, who were not on hormone therapy. After three monthly hyaluronic acid gel treatments, the authors report better hydration, texture, elasticity and fine lines. Treatment was well tolerated. With no control group and so few people, the results are preliminary.

JOURNAL OF DRUGS IN DERMATOLOGY : JDD · 2026-10-01

Scoping review finds lower ovarian reserve markers in women with sickle cell anaemia

A scoping review in EJHaem covered seven mostly observational studies of 488 women with sickle cell disease. Most comparative studies reported lower anti-Müllerian hormone levels than in controls, by 48% to 79%. Lower antral follicle counts were also seen. Studies differed in methods, so the results could not be pooled.

EJHAEM · 2026-10-01

In mice, disc cells lacking Wnt signalling drew fewer immune cells after injury

A study in mice, published in Aging Cell, deleted β-catenin, a part of Wnt signalling that declines with age, in spinal disc cells. This lowered a chemical signal for immune cells and reduced immune cell build-up in injured discs. The authors suggest Wnt signalling helps regulate low-grade inflammation in aged discs. The work is in animals only.

AGING CELL · 2026-10-01

Estrogen receptor may blunt immunotherapy response in breast cancer, study suggests

A study in the Journal for ImmunoTherapy of Cancer found that patients with estrogen receptor-negative breast cancer had higher complete response rates to immunotherapy plus chemotherapy than receptor-positive patients. Lab work pointed to a mechanism involving HMGB1. In mouse models, adding an estrogen receptor blocker to chemotherapy improved the effect of PD-1 blockade. Human benefit is untested.

JOURNAL FOR IMMUNOTHERAPY OF CANCER · 2026-10-01

Low CD4 TEMRA cells and galectin-7 linked to lung fibrosis

A study in Molecular Biomedicine used Mendelian randomization and found lower proportions of a T-cell type, CD4 TEMRA, associated with higher idiopathic pulmonary fibrosis risk. Patient blood and lung tissue showed fewer of these cells. The team reports galectin-7 from abnormal lung cells limits their development. Computer screening found neoeriocitrin, which restored signalling in cells and reduced fibrosis in in vivo laboratory experiments. No human treatment was tested.

MOLECULAR BIOMEDICINE · 2026-10-05

Fat inside back muscles is tied to weaker muscle in spinal sarcopenia

A study in Advanced Science examined people with spinal sarcopenia. Those with more fat within the muscle had lower paraspinal muscle mass and strength. Cell sequencing and lab experiments pointed to a fat-derived protein, ANGPTL4, that may suppress muscle regeneration. The authors suggest possible treatment targets. The mechanism work was done partly in cell lines.

ADVANCED SCIENCE (WEINHEIM, BADEN-WURTTEMBERG, GERMANY) · 2026-10-04

Brain imaging study finds shared cerebellar-cortical connectivity pattern across psychiatric disorders

A study in Biological Psychiatry analysed brain connectivity scans from 2,453 people in a discovery group and 442 in a validation group. Participants had depression, schizophrenia, anxiety, autism or ADHD, or were healthy controls. The researchers found a shared pattern of altered cerebellar-cortical connections, plus disorder-specific patterns linked to different molecular systems.

BIOLOGICAL PSYCHIATRY · 2026-10-03

Review: stem cells show promise in Alzheimer's models, but major hurdles remain

A review in Inflammopharmacology covers stem cells and the growth factors they release in Alzheimer's disease. Preclinical work in mice found improved synaptic density and memory, and lower amyloid. The authors note obstacles: tumour risk, poor long-term engraftment, immune rejection and manufacturing inconsistency. The text gives no human trial results.

INFLAMMOPHARMACOLOGY · 2026-10-03

Brain-scan method maps peripheral vision sensitivity without needing steady eye fixation

Researchers writing in eLife developed an fMRI approach to measure contrast sensitivity across the visual field. It was tested in seven people with normal sight. The patterns were reliable and largely held up despite eye movements in two participants. The method also visualised simulated and disease-linked sensitivity loss. It is an early method, not yet a clinical test.

ELIFE · 2026-10-02

Aging mouse heart and diaphragm show protein changes linked to muscle decline

A study in the European Journal of Translational Myology profiled proteins in the heart and diaphragm muscle of aging mice, a model of age-related muscle loss. Older tissue showed fibre degeneration, metabolic changes and more extracellular matrix. Two mitochondrial enzymes were strikingly reduced. The authors suggest the protein patterns could help build biomarkers of muscle aging.

EUROPEAN JOURNAL OF TRANSLATIONAL MYOLOGY · 2026-10-02

Mouse study shows cartilage makes its own fatty acids

Researchers writing in the Journal of Orthopaedic Research used heavy-water labelling in mice to track fat production in cartilage. They found cartilage actively makes the fatty acid palmitate. Mice lacking the enzyme ACC1 in cartilage showed signs of reduced production. The authors present the method as a tool for studying joint disease.

JOURNAL OF ORTHOPAEDIC RESEARCH : OFFICIAL PUBLICATION OF THE ORTHOPAEDIC RESEARCH SOCIETY · 2026-10-01

Review: genetic tools are entering heart care, with limits remaining

A review in Clinical Cardiology summarises how genomic tools are used in heart disease care. Gene-based risk scores can flag people with higher lifelong risk, but they currently work mainly as risk-enhancing markers, not standalone tests. The authors note challenges including ancestry bias, uncertain variant interpretation, limited access and privacy concerns.

CLINICAL CARDIOLOGY · 2026-10-01

Vitamin D linked to less muscle loss after spinal cord injury in mice

A study in the Journal of Cachexia, Sarcopenia and Muscle looked at muscle wasting after spinal cord injury. In patients, higher vitamin D blood levels were correlated with greater muscle index. In mice with spinal cord transection, daily vitamin D reduced muscle atrophy and appeared to work through a protein called TIGAR. Human benefit was not tested.

JOURNAL OF CACHEXIA, SARCOPENIA AND MUSCLE · 2026-10-01

Higher antioxidant-related lifestyle scores linked to less macular degeneration in US adults

A cross-sectional study in Medicine used survey data from 2,408 US adults. Higher lifestyle-based oxidative balance scores were associated with lower odds of age-related macular degeneration. Total and dietary scores showed similar but non-significant trends after adjustment. Because the design captures one point in time, it shows a link, not cause and effect.

MEDICINE · 2026-10-01

Two genes linked to neuropathic pain in gene-expression analysis

A study in Medicine analysed public gene-expression datasets and found two genes, HCK and WAS, were more active in neuropathic pain samples. A small blood test comparison of 17 patients and 17 healthy controls agreed. The genes showed some diagnostic potential. This is an association, and it does not show they cause pain.

MEDICINE · 2026-10-01

Obesity awareness did not track body measurements in small cross-sectional study

According to a study in the International Journal of Obesity, 123 adults aged 30-60 were compared on body measures and an obesity awareness scale. Body measurements did not correlate with overall awareness. Having a family member with obesity and occupational status were linked to awareness. This was a cross-sectional study, so it cannot show cause.

INTERNATIONAL JOURNAL OF OBESITY (2005) · 2026-10-05

Cancer screening rates fall with rurality and neighbourhood deprivation in the U.S.

A cross-sectional study in JNCI Monographs analysed U.S. census tracts. Screening for colorectal cancer was 64.5% in metropolitan areas and 61.2% in the most remote rural ones. Screening was lower in more deprived neighbourhoods, especially for colorectal and cervical cancer. Rural areas also had more smoking, inactivity and obesity. The design shows links, not causes.

JOURNAL OF THE NATIONAL CANCER INSTITUTE. MONOGRAPHS · 2026-10-03

Nurse-led education programme tested for pacemaker patients in Egyptian hospital study

A quasi-experimental study in BMC Nursing involved 70 adults with new pacemakers at Tanta University Hospitals, Egypt. One group received routine care. The other also received a nurse-led empowerment protocol of four individual sessions and weekly phone follow-up. Groups were not randomised and were recruited in different periods, which limits conclusions.

BMC NURSING · 2026-10-03

Case report: 3,000-metre run followed by rhabdomyolysis with sharply raised liver enzymes

A case report in The American Journal of Case Reports describes a 43-year-old man diagnosed with exertional rhabdomyolysis after a 3000-m run. Creatine kinase, a muscle enzyme, peaked at a moderate 2,828 U/L, while liver enzymes rose sharply (AST 2,294 U/L). Liver synthetic function stayed preserved. Levels fell with treatment, and all tests were normal at one year. One case cannot show how common this is.

THE AMERICAN JOURNAL OF CASE REPORTS · 2026-10-03

Waist-to-height ratio linked to heart attack and death in Swedish men

An observational study in BMC Public Health followed 959 Swedish men for 28 years. Six body measurements were linked to heart attack and death. After adjusting for traditional risk factors, many links weakened or vanished. Waist-to-height ratio held up best. The study shows association, not cause.

BMC PUBLIC HEALTH · 2026-10-02

Paper discusses how choosing adjustment variables shapes physical activity and health findings

A paper in the Journal of Physical Activity & Health discusses how observational studies choose which variables to adjust for when studying physical activity. These choices can change effect estimates and their interpretation. The authors use cohort data from Brazil, the UK and the US to illustrate the point for hypertension, type 2 diabetes and all-cause mortality.

JOURNAL OF PHYSICAL ACTIVITY & HEALTH · 2026-10-02

Most recommended vaccines reached fewer than half of Filipino adults with diabetes

A cross-sectional study in Human Vaccines & Immunotherapeutics surveyed 284 Filipino adults with diabetes at a tertiary hospital. Uptake was 44.4% for influenza, 49.6% for pneumococcal and 18.1% for herpes zoster. Primary COVID-19 vaccination reached 97.9%. Provider recommendation was associated with uptake. Common reasons for non-vaccination included no recommendation and cost.

HUMAN VACCINES & IMMUNOTHERAPEUTICS · 2026-10-02

Review links muscle-released proteins to mitochondrial problems in cardiometabolic disease

A narrative review in the Journal of Physiology and Biochemistry examines myokines, which are proteins released by skeletal muscle. The authors propose that an unfavourable myokine profile contributes to mitochondrial changes in cardiometabolic diseases. They also appraise human trials of myokine-based approaches. The idea is a proposal drawn from existing evidence, not a proven cause.

JOURNAL OF PHYSIOLOGY AND BIOCHEMISTRY · 2026-10-02

Higher blood CXCL10 linked to greater stroke risk in older adults

An observational study in Translational Stroke Research followed 1175 stroke-free adults aged 50 or older in the Northern Manhattan Study for a median of 14 years. There were 130 strokes. Each standard-deviation rise in the immune protein CXCL10 was linked to 20% greater stroke risk. This shows an association, not that CXCL10 causes stroke.

TRANSLATIONAL STROKE RESEARCH · 2026-10-02

Muscle activity during walking differed in frail older adults with heart disease

A case-control study in the Journal of Cachexia, Sarcopenia and Muscle compared 75 frail and 75 nonfrail older adults with cardiovascular disease. During a 10-metre walk, frail participants showed higher activity in one hamstring muscle and different activation order in a thigh muscle. They were also slower and older. The study shows differences, not causes.

JOURNAL OF CACHEXIA, SARCOPENIA AND MUSCLE · 2026-10-01

Japanese regions with more endoscopy specialists had lower colorectal cancer death rates

An ecological analysis in JGH Open used data from all 47 Japanese prefectures. Higher smoking and alcohol use were linked to higher colorectal cancer mortality. Higher physical activity and more board-certified endoscopy specialists were linked to lower mortality. Region-level data cannot show cause, and it says nothing certain about individuals.

JGH OPEN : AN OPEN ACCESS JOURNAL OF GASTROENTEROLOGY AND HEPATOLOGY · 2026-10-01

Review: dual-targeted nanocarriers for gynaecological cancers remain mostly preclinical

A review in Annals of medicine examines nanocarrier systems that aim at two targets in ovarian, cervical and endometrial cancers. The authors say most evidence comes from lab and animal models. Human testing is at an early phase. Challenges include scalable manufacturing, long-term safety, biological complexity and regulation.

ANNALS OF MEDICINE · 2026-10-04

Review examines how to give cancer patients clear information on high-tech care

A review in Acta Oncologica, written by technology leaders and patient representatives in a European cancer network, looks at the challenge of explaining complex cancer technologies to patients. It says poor information can add to inequalities in healthcare. The authors discuss possible solutions and provide example patient information tools covering seven technology areas.

ACTA ONCOLOGICA (STOCKHOLM, SWEDEN) · 2026-10-02

Review finds CRISPR cereal breeding steps shown separately but not as a full sequence

A review in the International Journal of Genomics examined CRISPR gene editing in wheat, rice, maize and barley breeding. It found each step has been demonstrated in some cereal, but the full sequence has not. The authors say integration studies are needed more than better editing precision.

INTERNATIONAL JOURNAL OF GENOMICS · 2026-10-01

Lab study compares two stem cell types for growing cartilage-like tissue

A laboratory study in the Journal of Molecular Histology compared human stem cells from amniotic fluid and from fat, grown on scaffolds with a growth factor. Both formed cartilage-like matrix. The amniotic fluid cells integrated better and built more matrix. This was cell work only, not tested in people with osteoarthritis.

JOURNAL OF MOLECULAR HISTOLOGY · 2026-10-01

WHO process names hydroxyurea the top near-term priority for children with sickle cell disease

A report in The Lancet Child & Adolescent Health describes a WHO review of sickle cell treatments for children. It confirmed hydroxyurea as the leading near-term priority. Child-friendly soluble or dispersible forms were called essential for fair access. Pyruvate kinase activators and decitabine plus tetrahydrouridine were named as promising candidates for paediatric investigation.

THE LANCET. CHILD & ADOLESCENT HEALTH · 2026-10-01

European platform builds 353 patient-derived models of childhood cancers

A report in Cancer Research describes ITCC-P4, a European public-private platform of 353 patient-derived xenograft models covering all major high-risk solid childhood cancers. The models came from diagnostic and relapsed tumours and were molecularly characterised. Proof-of-concept drug screening in neuroblastoma and rhabdomyosarcoma models identified potential predictive biomarkers for targeted therapy. The platform aims to help researchers prioritise new treatments. This is preclinical work.

CANCER RESEARCH · 2026-10-01

Hemophilia gene therapy: one-stage clotting assay better reflects factor VIII function

A study in Blood used mice and participants from a hemophilia A gene therapy trial. It found the one-stage assay captured enhanced activation of gene-therapy-made factor VIII that the chromogenic assay missed. In 23 participants, the one-stage assay trended toward better prediction of bleeding rates. The authors conclude it best predicts clinical outcome.

BLOOD · 2026-10-01

Tiny early trial tests CAR T-cell therapy for cancer spread to brain fluid

A phase I trial reported in Clinical Cancer Research gave an engineered immune-cell therapy into the spinal fluid of just 3 patients with cancer spread to the membranes around the brain. It was generally well tolerated, though one patient had grade 3 neurotoxicity. All had stable disease at 30 days. The authors call it preliminary proof of concept.

CLINICAL CANCER RESEARCH : AN OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH · 2026-10-01

Review: triglyceride levels alone may not capture heart and pancreas risk

A review in MedComm looks at high blood triglycerides. It says similar triglyceride values can arise from different causes. The authors argue that heart disease risk and pancreatitis risk are distinct. They propose weighing other measures, such as apoB and remnant cholesterol, to tailor treatment. It also covers emerging therapies.

MEDCOMM · 2026-09-30

Review discusses designing drugs for individual patients, from rare disease to cancer

A review in npj Drug Discovery describes personalized drug discovery. This approach develops drugs for an individual patient's disease, rather than choosing from existing therapies. It is currently being developed for rare disorders, where small patient numbers limit conventional methods, and for cancer. The authors argue it should be scaled up.

NPJ DRUG DISCOVERY · 2026-09-30

STRESS RESILIENCE & NERVOUS SYSTEM 9

Ukrainian civilians reported fewer anxiety and depression symptoms as war conditions worsened

A two-wave longitudinal study in the European Journal of Psychotraumatology followed 208 Ukrainian civilian adults in June and November 2023. Confidence in military success fell and objective threats rose. Yet anxiety, depression and somatic symptoms decreased on average. Worse baseline sleep predicted smaller reductions in anxiety and depression.

EUROPEAN JOURNAL OF PSYCHOTRAUMATOLOGY · 2026-10-05

Randomised trial tests stress and sleep supplement blends in healthy adults

A randomised, double-blind, placebo-controlled trial in the Journal of the International Society of Sports Nutrition enrolled 103 healthy, physically active adults. Groups received morning adaptogens, evening sleep supplements, both, or placebo for two weeks. The outcomes were stress, mood and sleep. The text provided cuts off before any results are given.

JOURNAL OF THE INTERNATIONAL SOCIETY OF SPORTS NUTRITION · 2026-10-04

Brain-clearance signal linked to decision-making in teens who self-injure

An observational brain-imaging study in CNS Neuroscience & Therapeutics compared 44 adolescents who self-injure with 33 healthy controls. In the self-injury group, poorer sleep was linked to a stronger brain-clearance signal, which in turn was linked to better gambling-task performance. These are correlations in a small sample, not proof of cause.

CNS NEUROSCIENCE & THERAPEUTICS · 2026-10-01

Review proposes 'protein rheostasis' to explain how ageing disrupts protein control

A review in Philosophical Transactions of the Royal Society B discusses protein rheostasis, a framework for how cells control shifts between protein states. The authors say ageing, stress and mutations may erode this control, pushing proteins towards clumped forms. They suggest it could point to future therapeutic ideas.

PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY OF LONDON. SERIES B, BIOLOGICAL SCIENCES · 2026-10-01

Review examines how semen vesicles may influence male fertility

A review in Reproduction in Domestic Animals summarises experimental evidence on extracellular vesicles in seminal plasma. These tiny packages carry proteins, nucleic acids and lipids that may interact with sperm and the female reproductive tract. The authors discuss their potential as fertility biomarkers and stress the need for careful isolation methods.

REPRODUCTION IN DOMESTIC ANIMALS = ZUCHTHYGIENE · 2026-10-01

Prolactin receptor signalling helps dampen stress-induced fever in pregnant mice

A study in mice, published in the Journal of Neuroendocrinology, looked at why stress-induced rises in body temperature fade in pregnancy. In normal pregnant mice this began at day 12. When the prolactin receptor was removed from certain brain neurons, it was delayed until day 14. This is animal research, not human data.

JOURNAL OF NEUROENDOCRINOLOGY · 2026-10-01

Review finds little guidance on trauma-aware health promotion for Aboriginal and Torres Strait Islander peoples

A narrative review in the Health Promotion Journal of Australia looked at trauma and health promotion for Aboriginal and Torres Strait Islander peoples. It found limited guidance on combining the two. Where guidance existed, it was mostly conceptual and lacked detail on how to put it into practice.

HEALTH PROMOTION JOURNAL OF AUSTRALIA : OFFICIAL JOURNAL OF AUSTRALIAN ASSOCIATION OF HEALTH PROMOTION PROFESSIONALS · 2026-10-01

Review finds daily-life coping studies vary widely in how they measure coping

A systematic review in Stress and Health examined 55 studies that tracked coping through daily diaries or repeated check-ins. Eighty percent used end-of-day diaries. Coping was often measured with short or single-item questions. Few studies modelled events over time. The authors say this variation limits what can be learned about coping and health.

STRESS AND HEALTH : JOURNAL OF THE INTERNATIONAL SOCIETY FOR THE INVESTIGATION OF STRESS · 2026-10-01

Review links family separation and trauma to health problems in Latinx immigrants

A scholarly review in Health Psychology says posttraumatic distress is a major health disparity for recently immigrated Latinx youth and families. Interpersonal traumas such as family separation appear associated with health disruption. Attachment, peer networks and cultural values appear linked to resilience and better health outcomes. The text describes associations, not proven causes.

HEALTH PSYCHOLOGY : OFFICIAL JOURNAL OF THE DIVISION OF HEALTH PSYCHOLOGY, AMERICAN PSYCHOLOGICAL ASSOCIATION · 2026-10-01

Cell study maps autophagy-driven inflammatory signalling in head and neck cancer

In a study in Functional & Integrative Genomics, a dsRNA mimic applied to CAL27 head and neck cancer cells triggered a senescence-associated inflammatory secretion without classic senescence. This depended on autophagy and NF-κB, and activated macrophage inflammation via IL-6 in lab assays. Blocking autophagy with chloroquine suppressed it in cells. A related signature was validated as prognostic in clinical specimens.

FUNCTIONAL & INTEGRATIVE GENOMICS · 2026-10-05

Animal-free culture medium speeds growth of human fat-derived stem cells in lab

A laboratory study in Stem Cell Research & Therapy compared three culture media for human fat-derived stem cells from three donors. Cells in the animal-origin-free medium doubled fastest. They kept their identity markers and showed no significant differences in genomic instability. The findings come from cells grown in a dish, not from patients.

STEM CELL RESEARCH & THERAPY · 2026-10-05

New ruthenium compound kills cisplatin-resistant lung cancer cells in lab study

A laboratory study in the journal Apoptosis tested a new ruthenium-based compound called Ru3. It killed cisplatin-resistant non-small cell lung cancer cells but spared the parental cells. The authors say it damages mitochondria and weakens the cells' defence against reactive oxygen species. This is cell research, not a human trial.

APOPTOSIS : AN INTERNATIONAL JOURNAL ON PROGRAMMED CELL DEATH · 2026-10-03

Compound P7C3 limited disuse bone loss in cell and animal tests

A study in Metabolism tested the compound P7C3 in lab-grown cells, including human preosteoclasts, and in a hindlimb suspension model of disuse bone loss in vivo. P7C3 promoted bone formation and inhibited the maturation and activity of bone-resorbing osteoclasts. Despite suspension, it reduced oxidative stress, bone marrow fat, cellular senescence and bone loss. These are preclinical findings, not human trial results.

METABOLISM: CLINICAL AND EXPERIMENTAL · 2026-10-03

Goat cartilage model suggests HIF-2α inhibitor could help in early osteoarthritis

A laboratory study in Biomedicine & Pharmacotherapy built an early osteoarthritis model using goat cartilage tissue exposed to an inflammatory signal. The authors say it resembled early human disease. In this model, a HIF-2α inhibitor called TC-S 7009 reduced cartilage loss and matrix-degrading enzymes. This was not a human trial.

BIOMEDICINE & PHARMACOTHERAPY = BIOMEDECINE & PHARMACOTHERAPIE · 2026-10-03

Review: leaked mitochondrial DNA may help sustain inflammation in aging cells

A review in Biogerontology describes how damaged mitochondria in senescent cells can leak DNA into the cell's interior. This can switch on the cGAS-STING pathway, which drives inflammatory signalling. Current evidence suggests the pathway maintains and amplifies inflammation rather than starting senescence. The authors say causal links and therapeutic timing need clarifying.

BIOGERONTOLOGY · 2026-10-03

Review finds no consistent cognitive benefit from sensory gamma stimulation in older adults

A systematic review and exploratory meta-analysis in GeroScience covered eight small studies of non-invasive gamma sensory stimulation in older adults. Some brain imaging findings suggested possible slowing of shrinkage. Cognitive results did not show a consistent benefit. The authors note the studies were small and varied, so conclusions remain limited.

GEROSCIENCE · 2026-10-03

Age-related brain wiring differences partly linked to greater phishing susceptibility in older adults

A study in GeroScience compared 51 younger and 46 cognitively healthy older adults. Older adults scored higher on a test of real-life email phishing susceptibility. Differences in two white matter tracts involved in social thinking partly accounted for that age gap. The design shows a statistical link, not proof of cause.

GEROSCIENCE · 2026-10-03

Review traces how scientists' view of cellular senescence has changed since 1961

A review in The EMBO Journal follows senescence research from its 1961 discovery. Senescent cells were first seen as cells that stop dividing with age. Later work showed they suppress tumours, signal to nearby tissue and, in mouse models, play causal roles in aging and age-related disease. The authors also discuss controversies and new technologies shaping the field.

THE EMBO JOURNAL · 2026-10-02

New method links gene variants to autoimmune risk through SESN3 gene

Researchers report in Nature Genetics a method that maps how single gene variants change DNA folding. They applied it to 405 regulatory regions tied to inflammatory immune diseases in T cells. They found one variant that blocks contact with the SESN3 gene. Mouse models supported a role for SESN3 in autoimmunity.

NATURE GENETICS · 2026-10-02

Gene H19 tied to bone-forming cell function under oxidative stress in mice

According to a study in Bone, the lncRNA H19 was identified as a regulator of bone-forming cell development under oxidative stress. Reducing H19 in mouse cells impaired bone formation in culture. Boosting H19 promoted bone repair in a mouse skull defect model. These are cell and mouse findings, not human results.

BONE · 2026-10-02

CLINICAL TRIALS 9

Registered NIA trial will test psilocybin alongside cognitive training in older adults

A phase 2 trial listed on ClinicalTrials.gov, sponsored by the National Institute on Aging, is recruiting adults 65 and older with mild cognitive impairment, early Alzheimer's or normal cognition. Participants get cognitive training with or without psilocybin. The trial is only registered and has no results yet.

CLINICALTRIALS.GOV (NCT07721467) · 2026-10-09

Planned study will compare nerve activity in people with PIEZO2 deficiency

A trial registry entry from ClinicalTrials.gov describes a planned study by the National Center for Complementary and Integrative Health. It will compare nerve function in people with PIEZO2 Deficiency Syndrome, a genetic condition affecting touch and pain, and in healthy volunteers. It is not yet recruiting and has no results.

CLINICALTRIALS.GOV (NCT06052631) · 2026-10-09

Suspended NCI trial seeks safe dose of inhaled azacytidine for lung cancer

A phase 1/2 trial on ClinicalTrials.gov, sponsored by the National Cancer Institute, aims to find the safest and most effective dose of inhaled azacytidine in adults with early-stage non-small cell lung cancer that can be removed by surgery. Inhaled azacytidine is not approved for this cancer. The trial is suspended and has reported no results.

CLINICALTRIALS.GOV (NCT06694454) · 2026-10-09

Novartis begins early safety trial of a radioligand drug in solid tumours

A trial registry entry lists a recruiting phase 1 study sponsored by Novartis. It will assess safety, tolerability, dosimetry and early effectiveness of a radioactive drug, [177Lu]Lu-DFC413, in adults with solid tumours. It also tests an imaging agent. The trial is only registered and has no results yet.

CLINICALTRIALS.GOV (NCT07261631) · 2026-10-09

Registered trial is testing ponatinib in children with advanced leukaemia, lymphoma or solid tumours

A ClinicalTrials.gov entry lists a phase 1 and 2 trial of ponatinib. It is sponsored by Incyte Biosciences International. The study is recruiting children aged 1 to under 18 with advanced leukaemias, lymphomas and solid tumours. It will assess safety, tolerability, pharmacokinetics and efficacy. No results have been reported yet.

CLINICALTRIALS.GOV (NCT03934372) · 2026-10-09

Planned US study will examine how people with rheumatic diseases experience pain

A ClinicalTrials.gov registry entry describes a study sponsored by the National Institute of Arthritis and Musculoskeletal and Skin Diseases. It is not yet recruiting and has no results. Researchers plan to learn how the body and brain experience pain in people aged 9 to 85 with rheumatic diseases and in healthy volunteers, using sensory testing, questionnaires and blood samples.

CLINICALTRIALS.GOV (NCT07829497) · 2026-10-09

Hospital plans to study automated urine monitoring in intensive care patients

A trial registry entry from Meir Medical Center describes a planned study. It will compare intensive care patients monitored with an automated urine system against earlier patients monitored by hand. The aim is to see whether closer monitoring reduces acute kidney injury. It is a registered plan, so there are no results yet.

CLINICALTRIALS.GOV (NCT05232045) · 2026-10-09

Registered trial will test a new magnetic brain stimulation method in healthy adults

A registry entry on ClinicalTrials.gov describes an early-phase trial, not yet recruiting, sponsored by the National Institute on Drug Abuse. It will test high-density theta burst stimulation in healthy adults aged 22 to 60. It will compare aftereffects with standard stimulation and sham stimulation. No results exist yet.

CLINICALTRIALS.GOV (NCT06868914) · 2026-10-09

Phase 2 platform trial for progressive supranuclear palsy is recruiting

A ClinicalTrials.gov entry lists the Progressive Supranuclear Palsy Clinical Trial Platform as a recruiting phase 2 trial. It is multi-center and tests several regimens. It will evaluate the safety and efficacy of investigational products for PSP. The trial is registered only, and no results are available yet.

CLINICALTRIALS.GOV (NCT07173803) · 2026-10-09

Two case reports show chest wall tuberculosis can mimic tumours

A report in the Journal of Surgical Case Reports describes two patients in the United Arab Emirates. One had a slowly growing chest wall mass that looked like a tumour. The other had a large abscess. Tissue examination confirmed tuberculosis. Both had surgery and six months of treatment, and both recovered fully. Two cases cannot show how common this is.

JOURNAL OF SURGICAL CASE REPORTS · 2026-10-04

Article proposes a model linking lifestyle medicine to successful aging

A paper in The Journals of Gerontology: Series A proposes a framework joining lifestyle medicine with ideas about successful aging. Lifestyle medicine covers nutrition, physical activity, stress, sleep, social connection and avoiding risky substances. The authors suggest these habits could support thinking, physical function and disease prevention. This is a conceptual model, not a test of results.

THE JOURNALS OF GERONTOLOGY. SERIES A, BIOLOGICAL SCIENCES AND MEDICAL SCIENCES · 2026-10-03

Breast cancer patients on chemotherapy show different sleep patterns in small study

An exploratory study in The Oncologist compared 62 women: those treated with chemotherapy plus other therapies, those without chemotherapy, and healthy controls. Sleep complaints and fatigue did not differ significantly. The chemotherapy group had fewer but longer night awakenings. The authors caution that treatment cannot be said to explain these differences.

THE ONCOLOGIST · 2026-10-03

Silibinin eased sleep-deprivation damage to memory and brain markers in rats

A study in Molecular Neurobiology used 48 rats to test silibinin after five days of sleep deprivation. Sleep-deprived rats showed worse cognitive performance, more oxidative stress and inflammation, and lower hippocampal BDNF. Silibinin reduced these changes, and results improved further with recovery sleep. This was an animal study, not a human trial.

MOLECULAR NEUROBIOLOGY · 2026-10-03

Review: colorectal cancer is rising in younger adults and screening gaps persist

A review in MedComm summarises what is known about colorectal cancer, from causes to treatment. It notes a heavy global burden and rising cases at younger ages. It covers newer tools such as blood-based screening and AI-assisted endoscopy. It also lists open problems, including unequal access to screening and limited immunotherapy benefit in some tumours.

MEDCOMM · 2026-10-02

Postpartum patient navigation did not raise full essential care rates in trial

A randomised trial in JAMA Health Forum enrolled 405 pregnant people with Medicaid. Half received a year of patient navigation and half usual care. Receiving all six essential postpartum care elements was similar: 9.4% with navigation and 7.9% with usual care. The text indicates the average proportion of components received was higher with navigation.

JAMA HEALTH FORUM · 2026-10-02

Night-time oxygen drops and smoking linked to lung deaths in sleep apnea

A study in Polish Archives of Internal Medicine followed 4368 people referred to a sleep centre. Over a median of 8.6 years, 101 died of lung-related causes. Older age, low night-time oxygen, active smoking, higher body mass index and male sex were linked to higher risk. This is observational, so it shows associations, not causes.

POLISH ARCHIVES OF INTERNAL MEDICINE · 2026-10-02

Sleep apnoea severity linked to weaker brain-wave connectivity in one sleep stage

A retrospective analysis in Sleep & Breathing studied sleep recordings from 50 patients with sleep apnoea or primary snoring. More severe apnoea was associated with lower brain-wave connectivity in two frequency bands during N2 sleep. Standard measures showed no link. This is a small correlation study and does not show cause.

SLEEP & BREATHING = SCHLAF & ATMUNG · 2026-10-02

Review finds brain tumour studies on glymphatic function remain inconsistent

A review in Neurosurgical Review drew on a PubMed search to select 22 preclinical and clinical studies on the brain's proposed waste-clearing glymphatic system in brain tumours. Human studies mostly use an indirect imaging measure called the ALPS index. The authors say its interpretation is still debated and that further research is needed to clarify consistent patterns and address variable findings.

NEUROSURGICAL REVIEW · 2026-10-02

Worsening depression linked to higher risk of multiple heart and metabolic diseases

A prospective observational study in the Journal of Global Health followed 51,416 people in China, the USA and Europe. Worsening depression was associated with higher risk of developing two or more of heart disease, stroke and diabetes. Depression remission was linked to lower risk in China and Europe. The design shows association, not cause.

JOURNAL OF GLOBAL HEALTH · 2026-10-02

NITRIC OXIDE & VASCULAR HEALTH

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Drug-coated stent with nanozyme coating reduced re-narrowing in animals

Researchers writing in Advanced Materials describe a stent coated with an enzyme-mimicking material that releases nitric oxide and a clot-preventing drug. In cell experiments, it limited muscle cell growth and helped blood vessel lining cells repair. In rabbit and pig models, it prevented restenosis. The text reports no human testing.

ADVANCED MATERIALS (DEERFIELD BEACH, FLA.) · 2026-10-05

Review links bariatric surgery to lower neutrophil trap activity and inflammation

A review in Obesity Surgery draws on preclinical and clinical studies. It reports that obesity is linked to excess formation of neutrophil extracellular traps, which are tied to inflammation, insulin resistance and clotting. Bariatric surgery was linked to reduced trap formation, lower inflammation and improved insulin sensitivity. The review also discusses treatments that target these traps.

OBESITY SURGERY · 2026-10-05

Machine learning model predicts severe flu in hospitalised children using admission data

A retrospective cohort study in BMC Medical Informatics and Decision Making used records from 436 children hospitalised with influenza. Using data from the first 24 hours, a random forest model scored 0.88 on a standard accuracy measure (AUROC). Blood glucose was the most important predictor. The model was tested on records, not in live care.

BMC MEDICAL INFORMATICS AND DECISION MAKING · 2026-10-05

Case report describes child with two rare inherited urea cycle disorders

A case report in JIMD Reports describes a girl with both argininosuccinic aciduria and citrin deficiency, which the authors believe is the first such case. She had seizures and severe hyperammonemic encephalopathy, and died at 33 months. Genetic testing found a variant in each of two genes. This is a single case.

JIMD REPORTS · 2026-10-04

Review examines how colorectal cancer spreads to the liver and how it is treated

A review in MedComm covers colorectal cancer liver metastasis, a major cause of death from colorectal cancer. It describes how the liver environment can be reshaped to support tumour growth and help cancer cells evade the immune system. It also surveys current treatments and emerging approaches, including immunotherapy and biomarker-guided care. The authors say an integrated understanding is still lacking.

MEDCOMM · 2026-10-04

Review examines receptor pathways in altitude sickness and related diseases

A review in MedComm discusses G protein-coupled receptors, a large family of cell receptors, in high-altitude diseases such as mountain sickness and pulmonary edema. It describes how they help regulate responses to low oxygen. The authors say how specific receptors drive adaptation versus harm is still incompletely defined.

MEDCOMM · 2026-10-04

Case report: breathing-onset motor neuron disease was missed for two years

A case report in Cureus describes a 78-year-old woman with two years of breathlessness, weight loss and decline. Many tests did not give a diagnosis. Raised carbon dioxide was first blamed on airways disease. Motor neuron disease was later diagnosed, and non-invasive ventilation brought clear improvement. This is one case, so it cannot show how common this is.

CUREUS · 2026-10-03

Case report describes rare spontaneous tumour lysis syndrome in endometrial cancer

A case report in Cureus describes a 55-year-old woman with metastatic endometrial cancer. She developed tumour lysis syndrome before any cancer treatment, a rare event in solid tumours. She had severe blood chemistry changes and kidney injury. Despite treatment, her organs failed progressively and she died. A single case cannot show how common this is.

CUREUS · 2026-10-03

ULTRA-PROCESSED FOOD & ULTRA-PROCESSED DIET 3

Essay argues global health should be organised around equity

An essay in PLOS Global Public Health argues that the new global health system needs a clearer purpose, after major donor disruptions. The authors propose making health equity the organising principle. They call for shifts such as mutual aid over substitution and knowledge sharing over technical assistance. This is an opinion piece, not a data study.

PLOS GLOBAL PUBLIC HEALTH · 2026-10-01

Study of 74 teenagers links food availability and hedonic hunger to eating patterns

A smartphone-based observational study in Applied Psychology: Health and Well-Being followed 74 adolescents aged 13 to 17 for 10 days. Higher trait hedonic hunger was associated with more sweet food and sugary drink intake, loss of control eating and overeating. Rising food availability predicted sweet food intake at the next eating episode.

APPLIED PSYCHOLOGY. HEALTH AND WELL-BEING · 2026-10-01

Review finds weak evidence on lifestyle education for overweight early adolescents

A systematic review in PLOS Global Public Health pooled five studies of 960 overweight or obese early adolescents. Combined nutrition and physical activity education may improve body measures and behaviours. But certainty of evidence was very low. No studies covered underweight adolescents, so that question remains unanswered.

PLOS GLOBAL PUBLIC HEALTH · 2026-09-29

PROTEINS & AMINO ACIDS

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Collagen gene COL24A1 linked to pregnancy loss in mice and human cells

A study in Advanced Science looked at a collagen gene called COL24A1. Mice lacking it had more embryo loss and uterine inflammation. Silencing it in human uterine cells also disrupted a key pregnancy process. One patient with repeated early losses had rare variants in the gene. The work is mostly in mice and cells.

ADVANCED SCIENCE (WEINHEIM, BADEN-WURTTEMBERG, GERMANY) · 2026-10-04

Aged mouse diaphragm nerve-muscle connections show compensatory changes in neurotransmitter release

A study in Biogerontology compared the diaphragm of 24-month-old and 3-month-old mice. Older nerve-muscle junctions showed weaker responses to single signals. They also released more neurotransmitter during repeated stimulation. The authors suggest this may partly compensate and help preserve breathing-muscle function with age. This is mouse research, not a human study.

BIOGERONTOLOGY · 2026-10-03

Chickpea protein supplement cut two blood markers in small cyclist trial

A randomised, double-blind, placebo-controlled trial in the Journal of the International Society of Sports Nutrition gave 24 male road cyclists 12 g/day of chickpea protein hydrolysate or placebo for 14 days. LDH, a muscle-damage marker, and CRP, an inflammation marker, fell in the supplement group and rose in the placebo group. Creatine kinase did not differ significantly. Body composition did not change.

JOURNAL OF THE INTERNATIONAL SOCIETY OF SPORTS NUTRITION · 2026-10-03

Review links FDXR gene variant location to symptom severity

A report and systematic review in Human Mutation describes five new patients with rare biallelic FDXR variants and analyses 89 published cases. Changes in one protein region seemed less common but tied to more severe, earlier-onset symptoms. The authors say the data may help explain genotype-phenotype links.

HUMAN MUTATION · 2026-10-02

Older drivers with type 2 diabetes had longer braking times in simulator study

A small cross-sectional study in the Journal of Diabetes compared drivers aged 60 to 79 in a driving simulator. Those with type 2 diabetes braked more slowly than controls, whether or not they had nerve damage. Those with neuropathy had lower muscle strength. Because the design is cross-sectional, it shows associations, not causes.

JOURNAL OF DIABETES · 2026-10-01

Higher blood albumin linked to fewer eosinophils in teens with allergic conditions

A cross-sectional study in Medicine analysed US survey data from 658 adolescents with asthma, allergic rhinitis or atopic dermatitis. Higher serum albumin was associated with lower blood eosinophil counts, with the link levelling off beyond 4.4 g/dL. This shows an association only, not cause. The authors suggest albumin might serve as a biomarker.

MEDICINE · 2026-10-01

Muscle-related blood marker linked to lower death risk in older Chinese adults

A cohort study in Medicine compared six creatinine and cystatin C biomarkers in adults aged 60 and over from a Chinese national study. The sarcopenia index showed the most consistent inverse link with death from any cause. However, it added only a small improvement in predicting deaths beyond standard factors. This shows an association, not a cause.

MEDICINE · 2026-10-01

Review: bacterial overgrowth after gut cancer surgery is poorly pinned down

A review in Annals of Gastroenterological Surgery examines small intestinal bacterial overgrowth after surgery for gut cancers. Reported rates of positive breath tests vary widely and may not reflect true prevalence. Breath tests may also give false positives after surgery. Evidence on treatment in these patients is limited and largely borrowed from general patients.

ANNALS OF GASTROENTEROLOGICAL SURGERY · 2026-10-01

Review assesses newer imaging and ultrasound tools for judging fracture risk

A review in Nature Reviews Rheumatology looks at newer tools for assessing fracture risk beyond standard bone density scans. These include finite element analysis, ultrasound and AI reading of routine radiology. The authors describe pre-clinical evidence as strong and observational data as encouraging. They say performance, fairness and health-service benefits still need evaluation.

NATURE REVIEWS. RHEUMATOLOGY · 2026-10-01

Brain tumour PET uptake linked to seizures in lower-grade glioma patients

A retrospective study in the Journal of Neuro-Oncology looked at 121 patients with lower-grade glioma. Among those with measurable tracer uptake on [18F]FET PET scans, 73% had seizures before surgery, compared with 40% of those without uptake. Uptake stayed independently associated with seizures after adjustment. The study shows a link, not a cause.

JOURNAL OF NEURO-ONCOLOGY · 2026-10-01

AI model estimates blood and organ markers from face photos

Researchers report in Advanced Science an AI model trained on over 10 million images to estimate 62 biomarkers from facial photographs. Accuracy varied. Across four outside groups, the median correlation was 0.172. Face-estimated cardiovascular markers were linked to coronary stenosis (AUC 0.66). The authors say it could run on a smartphone.

ADVANCED SCIENCE (WEINHEIM, BADEN-WURTTEMBERG, GERMANY) · 2026-10-01

High-resolution MRI maps amyloid plaques in Alzheimer's mouse brains

A study in NMR in Biomedicine used high-resolution MRI on preserved brain tissue from two Alzheimer's mouse models. Plaques were mostly diamagnetic, about 80% of total susceptibility. Plaques also contained ferritin. Coarser resolution missed plaques: cortex plaque loading in 5xFAD mice fell from 8.9% to 3.1%. This is mouse work, not human.

NMR IN BIOMEDICINE · 2026-10-01

Review finds smart wound dressings for ulcer prevention lack clinical proof

A review in the International Journal of Nanomedicine covers smart dressings that use sensors and AI to spot early signs of chronic ulcers. The authors report that evidence comes mostly from benchtop and animal studies. Prospective clinical studies showing fewer ulcers are largely absent. The technology remains at an early stage.

INTERNATIONAL JOURNAL OF NANOMEDICINE · 2026-09-30

Cerebral microbleeds found in 28.6% of Swedish memory clinic patients

A cross-sectional study in Alzheimer's & Dementia (Amsterdam) examined MRI scans from 747 memory clinic patients. Microbleeds appeared in 28.6%. Among amyloid-positive patients with cognitive impairment, 11.2% exceeded proposed thresholds for anti-amyloid therapy eligibility. A refined protocol improved agreement between the two readers.

ALZHEIMER'S & DEMENTIA (AMSTERDAM, NETHERLANDS) · 2026-09-30

Triglyceride-glucose indices linked to heart events in older rural adults

A cohort study in Frontiers in Endocrinology followed 4,169 rural adults aged 65 or older with no prior cardiovascular events. Over 6 years, 822 events occurred. Baseline and cumulative levels of two triglyceride-glucose-based indices were strongly associated with later events. Annual changes in the indices generally predicted less well. The findings show associations, not cause.

FRONTIERS IN ENDOCRINOLOGY · 2026-09-30

Review examines MRI 'swallow tail sign' as a possible aid for diagnosing Parkinson's

A review in Insights into Imaging covers the swallow tail sign, an MRI feature of the substantia nigra that disappears in Parkinson's disease. The authors describe it as a promising adjunct for telling Parkinson's from similar conditions. They note its biological basis and clinical usefulness are still incompletely understood and need further study.

INSIGHTS INTO IMAGING · 2026-09-30

Medicaid coverage of smart devices for older adults varies widely by state

A study in Clinical Interventions in Aging reviewed Medicaid home and community-based waivers from 2020 to 2026. Thirty-nine states and D.C. had 66 waivers for older adults. Explicit mentions of smart devices appeared in 39.4% of waivers across 19 states. Three states, Minnesota, Oklahoma and Pennsylvania, offered the most coverage.

CLINICAL INTERVENTIONS IN AGING · 2026-09-29

Brain oxygen extraction trends higher in older adults with mild cognitive impairment

A small MRI study in Imaging Neuroscience compared 58 cognitively normal older adults with 12 who had amnestic mild cognitive impairment. The impaired group showed a trend toward higher brain oxygen extraction across many cortical regions. In that group, higher oxygen extraction was associated with older age, significantly in the left inferior parietal region. The findings are associations and cannot show cause.

IMAGING NEUROSCIENCE (CAMBRIDGE, MASS.) · 2026-09-29

Review links abnormal marrow cells to scarring in myelofibrosis

A review in Biomarker Research looks at myelofibrosis, a bone marrow cancer. It gathers evidence that abnormal megakaryocytes release signals that drive scarring in the marrow. Current drugs reduce spleen size and symptoms. They have not been shown to consistently reverse established scarring. The authors say lasting control will likely need several approaches combined.

BIOMARKER RESEARCH · 2026-09-29

IN THE NEWS 1

Brain connectivity changes in Alzheimer's differ from those of normal aging

According to a post on Fight Aging!, researchers used MRI to measure functional connectivity, a gauge of brain activity over time. They report that changes seen in Alzheimer's disease patients differ from age-related changes in people without dementia. The summary text is brief and gives no further details on the study.

FIGHT AGING! · 2026-10-12