



Effectual
Services

Intelligence That Matters

Monthly
Newsletter
from
Effectual
Services

Dear Readers,

Welcome to **NewsEffect** –
May 2023

Newsletter Contents

- **Alternative Leather From Biomaterial**
- **Disruptive Technology Leads**
- **IP News**

Alternative Leather From Biomaterial



- [India's First Mango Leather Is The Newest Plant-Based Leather Alternative.](#) The CSIR-CLRI (Council for Scientific & Industrial Research- Central Leather Research Institute) in Chennai has introduced its newest plant-based alternative for conventional leather- Mango leather. The new material is made from discarded mango pulp and biopolymer, making it fully **biodegradable**. Mango pulp was chosen by the team at CLRI after testing a variety of agricultural by-products like rice straw, sugarcane straw, orange peels, wheat straw and banana peels. The process of **making the mango leather involves mixing 50 per cent of mango pulp with biopolymers** in both liquid and powder forms. The mixture is then processed to make sheets of material that can be used for leather production.
- [Rashki Uses Banana-Based Leather To Produce Aesthetic Yet Sustainable Handbags.](#) Historically Indians have always upcycled their clothing and reused discarded materials through innovative means. New-age companies based on the same premise are seeking out alternative methods of creating the same products. Homegrown brand Rashki is changing the status quo of the fashion landscape by launching India's first ever range of **handbags made from banana leather**. They are pioneering the **market of vegan handbags by partnering with 'Banofi' leather** in order to craft products that reflect conscious values. The sustainable alternative to animal leather is promoting a lifestyle that is rooted in slow fashion and longevity.
- [Saucony Originals Is Making Its Sneakers From Mushrooms.](#) Saucony Originals wants a slice of the sustainable action, introducing three signature sneakers for Spring/Summer 2023 that are all made from mushroom-derived alternative leather. Saucony Originals has used Hyphalite, a 95% bio-based fungal material, to reimagine its iconic sneakers in a sustainable manner. Here, **hemp-based materials combine with mushroom-based leather to create the majority of the shoe's structure**, while recycled laces, cork footbeds, and a mushroom logo on the tongue enhance the green-fingered goodness.
- [Sustainable textile innovations: Shrimp fabric is diverse, sustainable and has already been spotted on the catwalk.](#) A shrimp pack, bag or sneaker on the shelves is not unrealistic, researchers from TômTex have discovered. They are one step further in the development of their sustainable fabric and are able to manipulate the leather-like material very accurately. TômTex's new type of **textile is not made from shrimp meat, but from the complex type of sugar in the shell: chitin**. "You can find it everywhere in nature," assures Sved. She describes the building material as a white, sandy, odorless powder. You can **manipulate the material in a very diverse way. For example, you can make it look like leathers** such as alligator or snake, or other existing textures.
- [Aulive co-founders discuss the benefits of cruelty-free fashion.](#) In india, there are several popular brands which cater to a wide variety of fashionable vegan accessories to its customers. **Aulive is one of the popular brands for vegan handbags** which was launched in the year 2017 by co-founders Wamika Shekhawat and Yashraj V Rathor. Vegan leather is a type of leather substitute that is made without using animal products or by-products. Instead, it is **typically made from materials like polyurethane, pineapple leaves, coconut water or cactus etc**. One of the main benefits of using vegan leather is a cruelty-free alternative to animal leather, which is often associated with unethical practices in the fashion industry. In the future,we are considering expanding into leather alternative jackets, belts and many more. Our plans include expanding our product offerings, investing in more plant leather options and listening to our customers' requests.

Disruptive Technology Leads



[Plant Cells Use Mechanical Cues To Regenerate Damaged Tissues.](#)

Plants have an impressive ability to regenerate damaged tissues, but how they do it is not fully understood. Now, researchers from Japan have discovered the mechanisms involved in this superpower. In a recently published study in Nature Communications, a research group led by Osaka University has revealed that cells within plant leaves may be able to detect mechanical pressure—or the lack of it—to determine where they are and what type of cells they become in response to damage. It protects them from environmental stresses. Studying this cell type revealed that cell fate determination—how a cell develops into a final cell type—depends on a cell's location within the developing plant; for example, the epidermis only contains surface cells.

[Quantum technology for mobile phone encryption is coming.](#) DTU spin-out company develops a quantum mechanical random number generator that must be reduced to chip size to be included in the electronics in mobile phones. In a few years, protection of communication with quantum encryption may become a permanent fixture in mobile phones and thus protect communication from hacking.

[Shape-Changing Artificial Muscle Fibers Serve as Cell Scaffolds.](#)

In two new studies, North Carolina State University researchers designed and tested a series of textile fibers that can change shape and generate force like a muscle. In the first study, the researchers focused on the materials' influence on artificial muscles' strength and contraction length. The findings could help researchers tailor the fibers for different applications. In the second, proof-of-concept study, the researchers tested their fibers as scaffolds for live cells. Their findings suggest the fibers – known as “fiber robots” – could potentially be used to develop 3D models of living, moving systems in the human body.

[LIGO gravitational wave detector is back, ready to detect more colliding black holes & neutron stars.](#)

According to Lazzarini, the detectors will begin the run with a 30 per cent increased sensitivity. This means that they will be able to observe a larger fraction of the universe than before and will pick up gravitational-wave signals at a higher rate. This will let scientists test Albert Einstein's general theory of relativity and infer the real population of dead stars in the local universe.

[Microsoft and OpenAI join forces; Bing empowers ChatGPT to take on Google's dominance. What it means in the AI world?](#)

Microsoft strengthens partnership with OpenAI by integrating Bing search engine into ChatGPT, aiming to rival Google. The inclusion of Bing will be available in the premium ChatGPT Plus service initially, with plans to expand it to the regular version of the chatbot in the near future.

[Stellantis invests in Lyten; 3D Graphene and Li-S EV battery technology.](#)

Stellantis Ventures, the corporate venture fund of Stellantis, has invested in materials innovation and applications company Lyten to accelerate the commercialization of Lyten 3D Graphene applications for the mobility industry, including the LytCell Lithium-Sulfur EV battery (earlier post), light weighting composites, and novel on-board sensing. Lyten uses proprietary reactor technology which evolved from the semiconductor industry to transform methane into carbon and hydrogen. The carbon is permanently sequestered in the form of three-dimensional graphene, eliminating CO2 emissions

Disruptive Technology Leads (Contd.)



- As the race for artificial intelligence advances, [the American chipmaker Nvidia has unveiled a new supercomputer that will aid in the creation of generative AI models, recommender systems, and data analytics.](#) The DGX GH200 combines 256 GH200 superchips—each housing an ARM-based Grace CPU and H100 Tensor Core GPU—with 144 Terabytes of shared memory to achieve performance of up to 1 exaflop. This is equivalent to one quintillion floating point operations per second.
- [Arm Ltd unveiled a new chip technology for mobile devices](#) and Taiwanese smartphone chipmaker MediaTek Inc said it will use it in its next-generation product. Arm sells blueprints that chip designers use to build their own hardware. It will launch the Immortalis-G720, a chip for video imaging and artificial intelligence applications, and the Cortex-X4, a processor that will act as the brain of a mobile phone, at the Computex conference in Taiwan.
- [Uncovering rare Gene sequence using Artificial intelligence.](#) AI models and it's possibilities to test rare gene sequence by comparing millions of DNA sequences of one tissue, lets say human DNA sequences with a fruit fly's DNA sequences and identifying the synthetic rare extreme DNA sequence unique to humans. The functions of AI could predict the activities of the rare one in a million extreme sequences, says Professor James T.Kadonaga, university of California. In future, we could use this finding to test the ability of drug A but not drug B to activate a gene for practical applications.
- [Human-Robot interaction system based on machine learning.](#) HRI system to command robots through voice instructions and gestures making it feasible to control Robotics functions. With growing application of voice emotion recognition in human's life, WiMi Hologram Cloud Inc., a leading hologram augmented reality technology provider has announced the development of an HRI system based on machine learning algorithms to convert user's voice and gestures into commands to be executed by robots.
- [Singtel's Azure Public multi access edge computing harnessing power of 5G 's high speed and low latency in various enterprises.](#) The advantages of edge computing and AI coupled with 5G providing tools and applications to take leverage of low latency AI capabilities at the edge will empower users and organizations to achieve. For instance, helping surgeons to better visualize organs in high resolution 3D, and plan operating procedures. Plans are underway to launch the solution commercially later this year.
- [Quest 3, a far thinner and lighter AR headset by Meta.](#) Features similar to Apple "Reality Pro " VR/AR headset, an improved version by Meta with a second-generation Qualcomm Snapdragon XR2 chip, more sensors inside three pill-shaped areas containing four cameras , a depth sensor in the middle, providing to users almost life like experience, allowing users to walk effortlessly through the house while witnessing a seamless experience.

IP News



[According to a recent court lawsuit, Toyota Motor North America Inc.'s LTE cellular connectivity-equipped vehicles violate a number of wireless communication patents.](#)

In the US District Court for the Eastern District of Texas, GenghisComm Holdings LLC filed a lawsuit against Toyota, alleging that its vehicles violate four patents relating to network throughput, radio processing, and interference mitigation.

[Suit against Intel over infringement of computer parts.](#) Larry Golden's argument against Intel of monopolizing the the U.S. market for laptops, desktops, PC's, and CPU's by infringing his patent through exclusionary tactics. He also unsuccessfully sued apple and the U.S. government for infringement of the patents.

[New Zealand relaxation of approach to double patenting .](#) IPONZ, New Zealand's patent office relaxes it's approach to double patenting. Non identical claims, including overlapping and wholly encompassed claims between parent and divisional applications will be allowed without triggering a double patenting objection.

[Google to pay Sonos \\$32.5 million over infrigmenet case.](#) Infringing one of smart speaker maker Sonos Inc's patents wireless audio devices, Google to pay heavily for damages, decided by San Franciso federal jury. Further, Sonos reiterated, calling Google's lawsuit over the same to shield itself, an "intimidation tactic" to pummel a smaller competitor.

[A long-running copyright dispute between Apple Inc. and cybersecurity company Corellium Inc. around the latter's software that simulates the iOS operating system of the iPhone and enables security researchers to find software defects was unsuccessfully resurrected.](#)

The fair use theory of copyright law, which permits the duplication of copyrighted work under certain conditions, was upheld by the US Court of Appeals for the Eleventh Circuit in its decision that Corellium's CORSEC simulator is protected.

[Zeppelin Corp. filed a claim for patent infringement against ASUSTeK Computer Inc. on display technology advancements in portable devices](#) using fluorescent materials. According to the lawsuit submitted in the US District Court for the Eastern District of Texas, Zeppelin's patent covers technology that makes use of a fluorescent film that is adhered to the surface of a panel of electrodes, which is subsequently struck by electrons and produces color for display.

[Case of infringement pertaining to denial of attorney's fees and questions over case 's exceptionality.](#) Court of Appeals for the Federal Circuit (CAFC) issued a precedential decision ruling in favor of OneSubseas, a oil offshoring company, filing an infringement case against FMC technologies over the term "divert". Further due to long period of litigation and failure to prove the litigation being of non-infringement by FMC, Onesubseas is not liable to pay attorney's fees to FMC, decision held by CAFC.

IP News (Contd.)



• [Aberrant, CrossFirst Banks Hit With Latest mCom Patent Suits.](#)

Two more banks were sued Monday by mCom IP LLC for allegedly infringing its electronic banking patent. Amerant Bank NA and CrossFirst Bank were named as defendants in separate complaints filed by mCom in the US District Courts for the Southern and Eastern Districts of Texas. Both were accused of infringement concerning mCom's patented method for constructing a unified electronic banking environment.

• [The top patent earner in each state last year.](#)

Tech and engineering firms were the most inventive patent winners across the U.S. last year—a year marked by growing tension with foreign nations racing to bring world-changing tech like artificial intelligence and space satellites to market. Nearly 160,000 patents were assigned across the U.S. in 2022, according to the U.S. Patent and Trademark Office. When a patent is awarded through the USPTO, the individual or company that it's given to has the license to a temporary monopoly on business for that specific product or service. Companies have used patent law for decades to defend their intellectual property including designs and devices against competitors that might attempt to profit off of stolen ideas.

• [10x Genomics and Bardehle achieve rare AASI in biotech dispute against NanoString.](#)

In the dispute with 10x Genomics over diagnostic devices, NanoString Technologies suffered a bitter setback. The Munich Regional Court prohibited the US manufacturer from selling two products in Germany. It also ordered an anti-anti-suit injunction against applications filed by NanoString in the US to prevent the pronouncement and enforcement of the German judgments. In the meantime, the dispute has moved on to the next round.

• [U.S. Solicitor General urges Supreme Court not to hear Apple-Caltech patent case.](#)

Apple and Broadcom told the Federal Circuit that they should have been allowed to challenge the patents' validity at trial. Duh. The patent-focused appeals court upheld the trial judge's decision to block the companies from making the arguments because they could have raised them in their petitions for U.S. Patent and Trademark Office review of the patents. The companies appealed that decision to SCOTUS last September. They told the justices that the Federal Circuit misread the law, which they said only bars arguments that could have been raised during the review itself, not in the petition.

• [Court of Appeal confirms invalidity of Bristol-Myers Squibb apixaban patent.](#)

In London, the Court of Appeal has rejected an appeal by Bristol-Myers Squibb regarding the invalidation of a patent covering blood-clot prevention drug, apixaban. Sandoz and Teva had acted as joint claimants in the first-instance proceedings, which took a detailed look at plausibility within the context of lack of inventive step and sufficiency. The appeal decision is the first UK patent case to consider plausibility since the EPO handed down its final decision in G 2/21.

• [Cognizant's \\$570 million trade-secret case win against Syntel thrown out on appeal.](#)

A U.S. appeals court on Thursday vacated a \$570 million award Cognizant Technology Solutions Corp had won against rival software provider Atos SE's Syntel Inc for theft of its trade secrets related to healthcare insurance software. The New York-based 2nd U.S. Circuit Court of Appeals said Cognizant was not entitled to the damages under the federal trade secret law and ordered a Manhattan federal court to reconsider based on other grounds.

USA

Suite-427,425 Broadhollow Road, Melville | NY-11747
+1-972-256-8133

INDIA

SDF A-05, NSEZ, Noida–Dadri Road, Noida Phase II -201305
Unit No: 402, 4th Floor, Tower-A, Bestech Business Tower,
Sector-66 Mohali, Punjab – 160066, India
+91-120-4522210

SINGAPORE

531A, Upper Cross Street, Singapore- 051531
+91-120-4522211

info@effectualservices.com

The sum of
human
ingenuity and
expertise that
powers us.



Human interactions
that drive
innovation.

EffectUal
Services

Intelligence That Matters



SAN FRANCISCO & NEW YORK (U.S.A) | LONDON & STUTTGART (EUROPE) | NOIDA & MOHALI (INDIA) | SINGAPORE

We are a global research & consulting firm, with a specialization in Intellectual Property (IP) Management, enabling Fortune 500's, law firms, patent owners, inventors, research institutes, universities & venture capital / PE firms, to protect their IP, discover its inherent value and generate revenue