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Monthly
Newsletter
from
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Dear Readers,

Welcome to **NewsEffect** –
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Robotics Treatment



- [Game-Changing Robotics Technology Can Provide Remote Medical Treatment in High-Risk Emergency Environments](#) This game-changing robotics technology has been developed by researchers at The University of Sheffield (Sheffield, UK) for providing remote medical treatment to casualties in high-risk emergency environments such as humanitarian disasters and war zones. In a record time of nine months, the researchers succeeded in developing this pioneering, fully-integrated medical telepresence solution. The vehicle includes two robotic arms that have the ability to utilize medical instruments remotely. In less than 20 minutes, the UGV can carry out a critical preliminary examination on a patient, checking temperature, blood pressure, and heart rate, palpating the abdomen, and providing pain relief through an auto-injector. Meanwhile, all real-time data is streamed back to the remote operator.
- [5 space robots that could heal human bodies—or even grow new ones.](#) IN ONE OF HUMANITY'S many possible futures, the fearless explorers tasked with climbing cloud-splitting mountains in oxygen-poor atmospheres or charting the low, darkened craters of various alien landscapes would never perish from injuries during perilous scouting expeditions. Nor would they fall ill or sustain genetic damage, thanks to supercharged hypersleep chambers that would heal otherwise fatal wounds.
- [Artificial intelligence meets medical robotics](#) Artificial intelligence (AI) applications in medical robots are bringing a new era to medicine. Advanced medical robots can perform diagnostic and surgical procedures, aid rehabilitation, and provide symbiotic prosthetics to replace limbs. The technology used in these devices, including computer vision, medical image analysis, haptics, navigation, precise manipulation, and machine learning (ML), could allow autonomous robots to carry out diagnostic imaging, remote surgery, surgical subtasks, or even entire surgical procedures.
- [Accurate, Non-Invasive: How This Latest Robotic Tech at Chennai Hospital is Treating Cancer, Tumour](#) Sub-millimetre accuracy, precise tumour tracking, non-invasive and painless — Apollo Cancer Centre, Chennai has become the first hospital in Southeast Asia to bring the latest robotic and AI-run radiation therapy device for the treatment of cancers, tumours and neurological disorders. S7 generation CyberKnife – labelled globally as one of the most cutting-edge technology in radiation therapy – has been used by the hospital to treat 20 patients in the last month after it was installed on June 28.
- [RCS England and Intuitive partner to shape the future of robotic-assisted surgery](#) Leading robotic-assisted surgery (RAS) company Intuitive has further developed its support for the Royal College of Surgeons of England (RCS England) through its support of a new multi-professional network that will shape the future development of RAS surgery nationally. The three-year collaboration is another step in RCS England's pioneering work to shape the Future of Surgery. The aim is to accelerate the safe integration of RAS into healthcare nationally and to support surgeons at all levels of training and experience to become proficient in RAS.
- [First-Of-Its-Kind Robot Allows Clinicians to 'Feel' Patients Remotely](#) Touchlab Limited (Scotland, UK) has designed a robot named Vålky which is equipped with the company's cutting-edge e-skin technology that enables it to 'feel'. The electronic skin or "e-skin" can enhance a robot's ability to sense the environment, improves dexterous grasping and teleoperated manipulation, and prepares them for widespread adoption. Touchlab has created low-profile tactile sensors, thinner than human skin, that can be applied to both hard and soft robots. The company's e-skin consists of one or more ultra-thin force sensors transmitting sensations like pressure, vibration, or movement from a robot to a user in real time.

Disruptive Technology Leads



• [Nature inspires breakthrough achievement: Hazard-free production of fluorochemicals](#)

A team of chemists have developed an entirely **new method for generating critically important fluorochemicals** that bypasses the hazardous product hydrogen fluoride (HF) gas. In the novel method, solid-state CaF₂ is activated by a biomineralization-inspired process, which mimics the way that calcium phosphate minerals form biologically in teeth and bones. The team ground CaF₂ with powdered potassium phosphate salt in a ball-mill machine for several hours, using a mechanochemical process that has evolved from the traditional way that we grind spices with a pestle and mortar. The resulting powdered product, called Fluoromix, enabled **the synthesis of over 50 different fluorochemicals directly from CaF₂, with up to 98% yield.** Excitingly, the solid-state process developed was just as effective with acid grade fluorspar (> 97%, CaF₂) as it was with synthetic reagent grade CaF₂. The process represents a paradigm shift for the manufacturing of fluorochemicals across the globe and has led to the creation of FluoRok, a spin-out company focusing on the commercialisation of this technology and the development of safe, sustainable, and cost-effective fluorinations. The researchers hope that this study will encourage scientists around the world to **provide disruptive solutions to challenging chemical problems**, with the prospect of societal benefit.

• [New biodegradable plastics are compostable in your backyard](#)

A team led by researchers at the University of Washington has developed **new bioplastics that degrade on the same timescale as a banana peel** in a backyard compost bin. These bioplastics are made entirely from powdered blue-green cyanobacteria cells, otherwise known as spirulina. The team used heat and pressure to form the spirulina powder into various shapes, the same processing technique used to create conventional plastics. The UW team's bioplastics have mechanical properties that are comparable to single-use, petroleum-derived plastics.

• [Facebook parent Meta announces AI partnership with Microsoft](#)

Facebook parent company Meta is making its artificial intelligence chatbot, Llama 2, which will be available for commercial use through partnerships with major cloud providers including Microsoft. Meta has built this artificial intelligence system that rivals the likes of ChatGPT and Google's Bard.

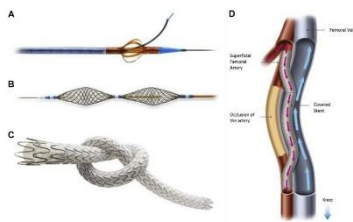
• [Zeolyst International and Valoregen Announce Strategic Development Program for Advanced Plastic Recycling Technologies](#)

Zeolyst International and Valoregen proudly announce their cooperation for the **development of advanced recycling technologies utilizing Zeolyst International's portfolio of Opal Infinity™ Zeolites.** Valoregen, with its unique patent-protected R-LowGen technology, aims to become the world's leading carbon-neutral recycler of flexible plastics. Our **disruptive technology is based on the principle of isothermal conversion using catalysts.** The catalyst used is an integral part of our unique recycling process, and the partnership with Zeolyst International, a major supplier in this field, will offer our company significant opportunities to improve performance and economic efficiency.

• [GenAI meets retail to streamline operations for fashion retailers:](#)

Operations such as inventory planning, customer service can be streamlined to facilitate fashion retailers such as Carrefour, IKEA and Amazon to make a tailor-made experience for better customer satisfaction. Taking advantage of customer's purchase history and preferences, genAI can create target specific strategies and personalized shopping experience to bolster retailers to deliver better services at reduced cost.

Disruptive Technology Leads (Contd.)



[Endologix Announces First Patients Treated with the DETOUR™ System, Advancing Treatment for Complex Peripheral Artery Disease.](#) Irvin a a privately held, global medical device company dedicated to **providing disruptive therapies for the interventional treatment of vascular disease, announced today that the first patients underwent Percutaneous Transmural Arterial Bypass (PTAB) using the DETOUR system,** since FDA approval of the system was granted. This marks the official start of its U.S. targeted market release. PTAB with the **DETOUR System offers a disruptive, novel approach** to treating complex Peripheral Arterial Disease (PAD), enabling physicians to bypass lesions in the superficial femoral artery, by using stents routed through the femoral vein to restore blood flow to the leg.

[Novel system for fixing bone fractures approved by FDA](#) A new system for fixing bone fractures, called the Bone Bolt System, has been approved for market by the U.S. Food and Drug Administration (FDA), the University of Utah Orthopaedic Innovation Center (OIC), Department of Orthopaedics and Spencer Fox Eccles School of Medicine announced on July 20, 2023. **The FDA granted the Bone Bolt System a 510(k) clearance to sell and market the device in the U.S. This milestone marks the first time that a novel medical device has received an FDA 510(k) clearance** in University of Utah's history. The Bone Bolt System is a novel implant system designed and developed by the OIC for percutaneous bone fracture fixation. The system is a comprehensive set of implants of various lengths and diameters, along with associated surgical instruments and sterilization trays. The implants are used to treat challenging bone fractures, such as pelvic fractures and fractures of the long bones in the arm and leg.

[Samsung announces GDDR7 RAM with speed of 1.5 terabytes per second.](#) Samsung has announced the development of the first Graphics Double Data Rate 7 (GDDR7) DRAM. This will help to bolster the graphics market and solidify Samsung's position as a technological leader. The GDDR7 memory comes with a capacity of 16 gigabits and offers faster speeds. The advanced IC design and packaging of the GDDR7 technology also ensures reliable performance at exceptionally high speeds.

[ChatGPT's new feature will make its responses personal.](#) The company is rolling out custom instructions that will give users more control over how ChatGPT responds. Users can set certain preferences, and ChatGPT will keep them in mind for all future conversations.

[Record-Breaking Advances in Next-Generation Flow Battery Design](#) A team of researchers from the Department of Energy's Pacific Northwest National Laboratory (PNNL) has made a significant breakthrough in **flow battery design using a common food and medicine additive called β -cyclodextrin, derived from starch.** While there are many flow battery designs and some commercial installations, **existing commercial facilities rely on mined minerals** such as vanadium that are costly and difficult to obtain. **That's why research teams are seeking effective alternative technologies** that use more common materials **that are easily synthesized, stable, and non-toxic.**

Advancement in AI



• [Apple's Advancements in AI: The Development of "Apple GPT".](#)

Apple is making significant progress in the field of artificial intelligence (AI) through its development of an AI-powered chatbot known as "Apple GPT." Multiple teams within the company are actively working on the project, with a strong focus on addressing privacy concerns. While Apple has not yet announced plans to release the technology to the public, industry insiders anticipate a notable AI-related announcement in the near future. The development of "Apple GPT" reflects Apple's dedication to exploring new frontiers in AI. While specific details about its release remain limited, Apple's commitment to privacy-conscious AI solutions brings optimism for the future of generative AI. As competitors forge ahead in this rapidly expanding field, all eyes are on Apple as it prepares to unveil its vision for AI.

• [Advancements in AI Technology Enhance Samsung's Soundbars.](#)

Samsung Electronics, the leading TV brand for 17 consecutive years, has also made a significant impact in the soundbar market. With a nine-year streak as the number one soundbar brand, Samsung has solidified its position as a global leader in this industry. The key to their success lies in their team of innovative engineers who have been at the forefront of revolutionizing the way people experience sound. Central to this innovation is Samsung's utilization of artificial intelligence (AI) technology to enhance sound and picture quality across their screens.

• [A Pioneering Research Program to Grow Human Brain Cells on Silicon Chips.](#)

The goal of this groundbreaking project is to cultivate human brain cells on silicon chips, resulting in unprecedented possibilities in the field of machine learning. The study focuses on growing around 800,000 living brain cells on the chips, enabling researchers to train these cells to perform specific tasks. Building on the success of a previous experiment where brain cells were taught to play the computer game Pong, this new study reflects a significant advancement in the team's research.

• [Advancements in AI: A New Era for Endocrine Disorder Diagnosis.](#)

Advancements in artificial intelligence (AI) have ushered in a new era for the diagnosis of endocrine disorders, revolutionizing the way healthcare professionals identify and treat these complex conditions. Endocrine disorders, which affect the body's hormone-producing glands, can be difficult to diagnose due to their wide-ranging symptoms and the intricate nature of the endocrine system. However, recent developments in AI technology have shown great promise in improving the accuracy and efficiency of endocrine disorder diagnosis, leading to better patient outcomes and more effective treatments.

• [Artificial Intelligence Advancements in Cancer Detection and Treatment.](#)

Artificial intelligence (AI) is revolutionizing various aspects of our lives, including cancer detection and treatment. Researchers are utilizing machine learning to develop tools in the field of cancer detection, potentially identifying tumors or lesions that may be missed by doctors. AI is also being employed to assist in the treatment of cancer patients and to facilitate communication about the intricacies of their treatments. One of the notable advancements in AI cancer detection is Sybil, a tool developed and tested by a team at MIT and Mass General Cancer Center.

• [AI Informatics: A Catalyst for Breakthroughs in Problem Solving.](#)

Artificial Intelligence (AI) informatics, an emerging field that combines AI and data science, is rapidly becoming a catalyst for breakthroughs in problem-solving across a multitude of sectors. This revolutionary technology has the potential to transform industries, from healthcare and finance to transportation and education, by enabling the creation of intelligent systems that can understand, learn, predict, adapt and operate autonomously.

IP News



• [Tesla Sues Cap-XX Over EV Battery Patents, Recalling Musk Pledge](#).

Tesla Inc. sued a maker of energy-storage products that can charge and discharge much faster than batteries, alleging **Cap-XX Ltd.'s supercapacitors infringe two patents**—a move that calls into question Elon Musk's pledge that Tesla wouldn't litigate over its electric-vehicle inventions..

• [Indian court turns down PepsiCo's appeal against revocation of potato patent](#)

An Indian court rejected **PepsiCo Inc's appeal against an order that revoked a patent for a potato variety** grown exclusively for the New York-based company's popular Lay's potato chips. The Protection of Plant Varieties and Farmers' Rights (PPVFR) Authority in 2021 revoked intellectual protection granted to PepsiCo's FC5 potato variety, saying that India's rules do not allow a patent on seed varieties.. The authority removed PepsiCo's patent cover after Kavitha Kuruganti, a farmers' rights activist, argued that the company cannot claim a patent over a seed variety. PepsiCo petitioned the Delhi High Court against the revocation of the patent cover. In its order dated July 5, Delhi High Court judge Navin Chawla dismissed PepsiCo's appeal against the authority's decision.

• [In defense of Actemra: Roche sues Biogen over biosimilar infringement claims.](#)

Roche and its subsidiaries Genentech and Chugai Pharmaceutical late last week mounted **a lawsuit in Massachusetts over claims that Biogen's proposed biosimilar** to Actemra, BIIB800, violates multiple plaintiff-held patents. Roche has accused Biogen of making several missteps in the "statutory patent dance" surrounding the biosimilar approval process in the U.S

• [Google sued for 'secretly stealing' data to train its AI products](#).

Google confirmed that it has updated its policy and added that it uses publicly available information from the open web to train language models for services like Google Translate and Bard. On the basis of this, the company has been hit with a wide-ranging lawsuit. According to a report by CNN, the lawsuit alleged that the tech giant scraped data from millions of users without their consent. It also noted that it also violated copyright laws when it trained and developed its AI products

• [Exelixis, Inc. Announces Settlement of CABOMETYX® \(cabozantinib\) Patent Litigation with Teva Pharmaceuticals](#) --

Exelixis, Inc. (Nasdaq: EXEL) today announced that it has entered into a Settlement and License Agreement (Agreement) with Teva Pharmaceuticals Development, Inc. and Teva Pharmaceuticals USA, Inc. (collectively Teva). This **settlement resolves patent litigation brought by Exelixis in response to Teva's** Abbreviated New Drug Application (ANDA) seeking approval to market a generic version of CABOMETYX® (cabozantinib) tablets prior to the expiration of the applicable patents. Pursuant to the terms of the Agreement, Exelixis will grant Teva a license to market its generic version of CABOMETYX in the United States beginning on January 1, 2031, if approved by the U.S. Food and Drug Administration and subject to conditions and exceptions common to agreements of this type.

IP News (Contd.)



• [The legal ramifications of billionaire Elon Musk's plan to redesign](#)

[Twitter as X](#) could be significant because firms like Microsoft and Meta already own the intellectual property rights to the same letter. X is a candidate for legal problems because it is used and quoted in trademarks so frequently. The business formerly known as Twitter may also have trouble in the future defending its X brand.

• [10x, Harvard must face antitrust claims in gene-analysis patent](#)

[cases](#) A federal judge in Delaware said on Monday that 10x Genomics (TXG.O) and Harvard University must face antitrust counterclaims over their **licensing practices in two gene-analysis patent lawsuits**. U.S. District Judge Matthew Kennelly allowed 10x rivals Vizgen and NanoString (NSTG.O) to press allegations that 10x and Harvard broke promises that their technology would be subject to open licenses based on the terms of the school's research funding agreement with the National Institutes of Health..

• [Barbie in the 'Real World' of Expiring 'Luxury' Intellectual Property:](#)

Highlighting the importance of copyright renewal especially in India with sluggish registration process as in the case of famous milkshake brand Kevantars based in Delhi, no longer is the word Barbie associated with pink, on the contrary lawyers familiar with intellectual property knows Barbie to be the most fierce and fought over intellectual property which is now free for public use due to no copyright ownership leading to intriguing results for consumers and complex brand issues for copyright owners.

• [Activision, a maker of video games, has sued music critic](#)

[Anthony Fantano, alleging that he violated intellectual property rules on TikTok.](#)

The argument started after Fantano released the popular audio clip "that's enough slices" in 2021. Activision got a threat from Fantano after using the clip to advertise their Crash Bandicoot video game series, according to the document seen by Billboard.

• [Manuka Honey trademark case in NZ emphasizes obstacles](#)

[pertaining to "distinctiveness":](#)

In an trademark feud over the Manuka honey name between New Zealand and Australia, MHAS, a government funded organization in New Zealand strives to secure trademark registration for Manuka Honey worldwide. However, since the term mānuka is descriptive and lacked distinctiveness indicating a conflict between Maori's tikanga's principles, indigenous Polynesian people of the mainland New Zealand and the legal framework of New Zealand's IP office, this highlights the absence of mechanisms in New Zealand trademark law.

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Every year, World IP Review painstakingly compiles the opinions of over 12,000 IP professionals. Following a thorough examination procedure, outstanding people who have become leaders in their fields are shortlisted. The WIPR research team carefully assesses the shortlisted candidate's background, industry expertise, work accomplished, and other contributions. Their selection demonstrates their capacity to sculpt and sway IP's destiny..

Effectual Services is thrilled to share & proud to announce that Dr. Amit Goel , Director & Co-Founder Effectual Services has been recognized & included in the renowned WIPR - World IP Review Leaders 2023 Directory, which is a testament to his expertise in the field of IP..

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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

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human
ingenuity and
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