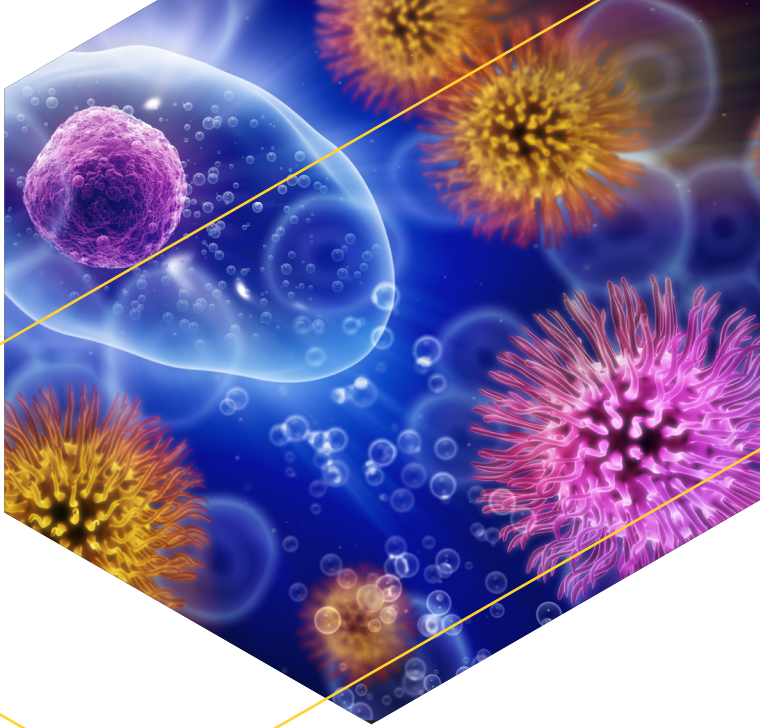


CAS CUSTOM SERVICES℠

CULTIVATING CRITICAL BIOMATERIAL TRENDS

Solution success story

The Challenge: An imposing array of scientific literature on biomaterials

Whether for medical devices, brain-computer interfaces, drug delivery, or regenerative medicine, biomaterials hold exceptional potential in transforming healthcare. Recognizing the pivotal role of biomaterials in scientific progress, Westlake University, a rising star in biomaterials R&D, sought to unravel future trends in materials development. Once complete, the research project would provide foresight for pertinent scientific research and industrial advancement, sparking discussions and facilitating exchanges within the scientific, industrial, and investment community and contributing to a healthy global future.

However, the siloing of premier researchers into specialized fields makes identifying opportunities to turn discoveries into commercial leads and real-world solutions difficult. Having a centralized report based on scientific and patent literature provides a high-level perspective to uncover possibilities.

Focusing on cutting-edge scientific research, Westlake University dedicates itself to breakthroughs in advanced technology, emphasizes interdisciplinary collaboration, and consistently promotes human health and well-being. Westlake sought a partner with scientific knowledge expertise, an extensive collection of indexed content, and state-of-the-art data analytics capabilities uniquely positioned to generate panoramic insights into scientific trends.

CAS
A division of the
American Chemical Society

The Solution: Using natural language processing to compile biomaterial literature

Westlake collaborated with the CAS Custom Services team to develop a tailored solution to meet their objectives and stringent deadlines. Using the Python Natural Language Toolkit combined with the unique CAS Content Collection™, data specialists swiftly identified specific phrases pertaining to biomaterials, allowing for the calculation of publication and relative growth rates in the field.

Within a remarkable span of just two months, perfectly timed for the Westlake Future Summit, the partnership culminated in the successful publication of the *"Top 10 Emerging Trends in Biomaterials"* report. Leveraging Westlake professors' expertise and the unique capabilities of CAS, the biomaterial report consolidates eight peer-reviewed chapters. These chapters meticulously cover major new opportunities, emerging trends, and pivotal challenges, offering a precise and comprehensive overview of the current biomaterials landscape.

This report represents more than a successful collaboration with CAS. It delivers a forward-looking paradigm for research and development. For institutions worldwide, it offers a strategic roadmap for operational planning while identifying opportunities for commercializing current research. For Westlake University, it signaled a step forward in pursuing its founding mission of becoming a global leader in frontier scientific research.



"It has been an honor to collaborate with the team at CAS on [this] research project. It is a testament to the wisdom of the Westlake University PI and research teams, the steadfast support of your robust database, and the unwavering dedication of the CAS team. From the outset, our institutions upheld the highest standards of excellence and sought to make a significant impact. Throughout our collaboration, there was mutual trust and respect between our teams, fostering close cooperation."

Mr. Yutao Zhan, Deputy Director, Office of Strategy Research, Research Center for Industries of the Future

Find out how CAS Custom Services can help you transform scientific data into actionable, evidence-based insights that maximize investment and fuel success.

Learn more at cas.org

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