

Waters Collaborates with Leading Researchers and Industry Partners to Advance the Science of Alternative Proteins

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News Summary:

- Waters is providing both technology and expertise to help advance the science of plant-based proteins and tackle problems of climate change and food security
- Waters joins the Plant Protein Innovation Center at the University of Minnesota to collaborate with more than 50 leading researchers and industry partners
- Researchers will use Waters' ACQUITY Premier UltraPerformance Liquid Chromatography (UPLC™)-driven workflow to simplify analyses and become a standard measure of amino acid compositions in alternative proteins

MILFORD, Mass.--(BUSINESS WIRE)-- Waters Corporation (NYSE:WAT) announced it is providing both technology and expertise to help advance plant-based protein science in collaboration with researchers of the [Plant Protein Innovation Center \(PPIC\)](#) at the University of Minnesota. Waters scientists will work with PPIC researchers to develop a workflow for measuring the amino acid content of plant-based proteins using a Waters [ACQUITY™ Premier UPLC System](#). Waters is the first analytical instrument company to become a member of the PPIC, an industry-leading interdisciplinary research center dedicated to studying plant and alternative proteins.

Scientists at the University of Minnesota's Plant Protein Innovation Center are developing an amino acid analysis workflow on a Waters ACQUITY Premier UPLC System for advanced plant protein research. (Photo: Business Wire)

According to a July 2022 report by Boston Consulting Group, animal agriculture is the largest global greenhouse gas emitter

within the food system and accounts for 15% of global emissions. If alternative proteins stay on track to match the taste, texture and price of conventional animal proteins, researchers estimate they will account for an 11% share of

the food market by 2035 and account for a reduction in CO2 emissions equal to 95% of today's aviation industry emissions.i

"Just as climate change and population growth are driving demand for alternatives to animal protein, changing consumer tastes are also creating a preference for healthy and more sustainable dietary options to meet their future needs and wants," said Warren Potts, Senior Director, Global Food and Environmental Business, Waters Corporation. "Waters is proud to be the first analytical instrument company to join PPIC in its pursuit of alternative sources of proteins while addressing the issues of climate change and food security."

"As we translate research to reality through developing and introducing novel and sustainable plant protein ingredients and products with acceptable functionality and nutrition, we rely heavily on robust and accurate analytical tools," said Dr. B. Pam Ismail, Founder and Director of the PPIC. "PPIC and its member organizations are, therefore, thrilled to partner with Waters to advance our analytical capabilities for the alternative protein market."

Liquid Chromatography is Essential for Amino Acid Analysis

Proteins are made up of 20 chemical 'building blocks' called amino acids. The amino acids we make ourselves or that we take in with food, link together in different combinations to make new proteins that help build and repair muscles, tendons, and organs. While humans produce 11 of these amino acids, the remaining nine amino acids are essential for human health and are derived only from plant or animal sources.

Amino acid analysis provides a basic measure of the functional and nutritional value of both animal- and plant-based proteins slated for consumer food products. Any research into plant-based proteins requires a way to measure their amino acid content, for which liquid chromatography is particularly well-suited.

Additional Resources

- Learn more about Waters' liquid chromatography and [amino acid analysis](#)
- Download a copy of Waters' [Amino Acid Analysis Application Notebook](#)
- Follow and connect with Waters via [LinkedIn](#), [Twitter](#), and [Facebook](#)

About Waters Corporation (www.waters.com)

Waters Corporation (NYSE:WAT), a global leader in analytical instruments and software, has pioneered chromatography, mass spectrometry, and thermal analysis innovations serving the life, materials, and food sciences for more than 60 years. With more than 7,800 employees worldwide, Waters operates directly in more than 35 countries, including 14 manufacturing facilities, and with products available in more than 100 countries.

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ⁱ Morach, Benjamin et al, [The Untapped Climate Opportunity in Alternative Proteins](#), Boston Consulting Group, July 8, 2022.

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