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Client: Balchem

Project: Long COVID trial – Press release

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New Scientific Research Sheds Light on the Role of Vitamins K2 MK-7 and D3 in Alleviating

**Long COVID Symptoms** 

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Montvale, New Jersey (March 04, 2025) – A groundbreaking clinical trial conducted by University

Hospitals in Cleveland, Ohio, USA, and published in the peer-reviewed journal Nutrients has revealed

that a daily dose of vitamin D3 and vitamin K2 MK-7 could help improve symptoms of long COVID.

Designed and funded by University Hospitals (UH), the single-site randomized controlled study used a

vitamin K2 MK-7 ingredient provided by Balchem (K2VITAL™ MCT). The research confirmed the anti-

inflammatory properties of vitamin K2 and D3 in addressing long COVID, highlighting the potential to

fill a critical gap that could have global applications.1

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Vitamin K2 MK-7 and D3

14 The trial involved 151 adults aged 18 years and over, all diagnosed with a previous COVID-19

infection and experiencing prolonged, recurrent or newly developed symptoms more than three

months after their positive test result. Participants were randomly assigned to either standard of care

(SOC) or a daily dose of 240 μg of vitamin K2 MK-7 (K2VITAL™ MCT) and 50 μg (2000 IU) vitamin D

18 for 24 weeks.

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<sup>&</sup>lt;sup>1</sup> Atieh O, et al., Vitamins K2 and D3 Improve Long COVID, Fungal Translocation, and Inflammation: Randomized Controlled Trial. Nutrients. 2025 Jan 16;17(2):304. doi: 10.3390/nu17020304. PMID: 39861434; PMCID: PMC11767688.

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Results showed that those receiving the vitamin combination experienced a significant <sup>1</sup>
improvements in the total number of Long COVID symptoms. They also showed reductions in scores
on the Long COVID Research Index – a tool used to classify and identify individuals with Long COVID.
The most frequently reported symptoms were fatigue, problems thinking, pain in any part of the body,
shortness of breath, and change in smell or taste. Notably, there was a significant decrease in
participants suffering from body pain and post-exertional malaise, suggesting a beneficial effect of
vitamins K2 and D3 on muscle-related symptoms. After 24 weeks, the treatment group also exhibited
important reductions in several inflammatory markers and oxidized LDL levels, indicating how the two
vitamins support immune and cardiovascular health. Additionally, supplementation with these nutrients
effectively decreased gut permeability and fungal translocation - key factors in the pathophysiology of
long COVID. <sup>1</sup>
Commenting on the study, Dr. Grace McComsey, MD, FIDSA, Professor of Medicine and
Pediatrics and vice Dean for Clinical and Translational research at Case Western Reserve
University, and Research Integrity Officer at University Hospitals and Principal Investigator of
the intervention trial said, "For the first time, in this randomized controlled clinical trial, we
investigated the effects of vitamins K2 and D3 on long COVID symptomatology, as well as markers of
immune activation and gut function. We observed a treatment effect of K2/D3 on reducing the long
COVID Research Index and total number of symptoms, highlighting the promising impact of vitamin
K2/D3 supplementation in attenuating long COVID."
"At Balchem, science is at the heart of everything we do and we are dedicated to collaborating with
universities and research institutions to drive scientific progress. We're proud that our K2VITAL™
ingredient played a role in this study, and the findings hold great potential for the future," concludes
Trygve Bergeland, Director Nutrition Science,Balchem Human Nutrition and Health.

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46	For more information about Balchem and its brand K2VITAL™, visit:
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50	For further details, contact:
51	
52	Matilde Martinuzzi
53	Senior PR Account Executive
54	Barrett Dixon Bell
55	matilde.martinuzzi@bdb.co.uk
56	
57	Merve Kalem
58	Manager Marketing Communications K2VITAL® and Albion® Minerals
59	Balchem Human Nutrition and Health
60	merve.kalem@balchem.com
61	
62	Anne Bünting
63	Director Marketing Communications Human Nutrition & Health
64	Balchem Human Nutrition and Health
65	Anne.Buenting@balchem.com
66	
67	Materials Ellipse
68	Notes to Editors:
69	Although Ballaham Camanadian
70	About Balchem Corporation
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72	Balchem Corporation develops, manufactures, and markets specialty ingredients that improve and
73	enhance the health and well-being of life on the planet, providing state-of-the-art solutions and the
74 75	finest quality products for a range of industries worldwide. The company reports three business
75 70	segments: Human Nutrition & Health; Animal Nutrition & Health; and Specialty Products. The Human
76	Nutrition & Health segment delivers customized food and beverage ingredient systems, as well as key
77 70	nutrients into a variety of applications across the food, supplement and pharmaceutical industries. The
78 70	Animal Nutrition & Health segment manufactures and supplies products to numerous animal health
79	markets. Through Specialty Products, Balchem provides specialty-packaged chemicals for use in
80	healthcare and other industries, and also provides chelated minerals to the micronutrient agricultural
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82	Many information of
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#### **About K2VITAL™**

K2VITAL™ is patented, typically 99.7% all-trans K2 MK-7. Identical to the K2 molecule found in nature and fully bioactive. Vitamin K2 all-trans MK-7 is the biologically active form of vitamin K2, a fat-soluble vital vitamin that supports calcium metabolism. Vitamin K2 activates vitamin K-dependent proteins which help move calcium to where it needs to be in the body, supporting bone and heart. K2VITAL™ offers uncompromising quality and stability, providing the maximum benefits of vitamin K2.