ORANGE BIOMED

MEDIA KIT

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POSITIONING STATEMENT

For people with diabetes and healthcare professionals who want an easy-to-use portable A1C testing device, Orange Biomed developed **OBM rapid A1c** with breakthrough microfluidic technology for better, accessible and affordable diabetes management. Orange Biomed improves on the accuracy, timeliness, and longevity of current at-home A1C devices available in the U.S. Easily retrieve lab-accurate results in under 5 minutes.

MISSION STATEMENT

We provide accessible and affordable medical technology that empowers patients to live normal, happy lives.

VISION STATEMENT

A medical device company that stays close to everyone.

COMPANY BACKGROUND

Orange Biomed is a healthcare startup revolutionizing diabetes management with cutting-edge technology. Founded in 2021 by Co-Founders and Co-Presidents Yeaseul Park and Unghyeon Ko, the company is committed to addressing unmet healthcare needs by bringing point-of-care (POC) technology into patients' homes.

OBM rapid A1c is Orange Biomed's flagship innovation, an accessible and affordable A1C testing device designed for diabetes management. Orange Biomed collaborates with Seoul Asan Medical Center, South Korea's largest hospital, to advance research on OBM rapid A1c. Asan Medical Center is backed by Hyundai, one of Korea's largest conglomerates with a strong commitment to healthcare innovation.

In 2022, Orange Biomed developed a prototype of its portable A1C meter, a breakthrough POC medical device that delivers test results in just five minutes. Unlike traditional at-home A1C tests, OBM rapid A1c offers a long shelf life and requires only a minimal blood sample, making routine diabetes monitoring more convenient and accessible.

The global impact of OBM rapid A1c was recognized in 2024 when the Korean Hospital Association honored it with the prestigious KHF Innovation Award for its revolutionary application of microfluidic technology conducting single-cell analysis.

In 2025 and beyond, Orange Biomed is focused on bringing OBM rapid A1c to U.S. patient-oriented healthcare. The company awaits FDA clearance for over-the-counter (OTC) use, followed by a POC application submission, further expanding access to innovative diabetes care solutions and more.

INVESTORS & PARTNERS

ASAN Medical Center

INTOPS INVESTMENT

RootN Global Investors

DIGITAL HEALTHCARE PARTNERS

CK GOLDILOCKS ASSET MANAGEMENT

SEOUL INVESTMENT

IBK Capital

SEOUL IP

PRODUCT OVERVIEW

HOW TO USE "OBM RAPID A1C"

REVOLUTIONARY NEW METHOD OF TESTING HBA1C

DIGITAL ASSETS

CLICK FOR ORANGE BIOMED DIGITAL ASSETS →

COMPANY AWARDS & RECOGNITIONS

ORANGE BIOMED RECOGNIZED GLOBALLY WITH KHF INNOVATION AWARD FOR PIONEERING MICROFLUIDIC TECHNOLOGY APPLICATION→

ORANGE BIOMED, SHINBO 'FIRST PENGUIN' COMPANY SELECTION→

NOTABLE PRESS COVERAGE

DENVER 7 abc

COMPANY WORKING TO IMPROVE A1C READINGS FOR BLACK PEOPLE FACING DIABETES→

THE GOOD MEN PROJECT

ORANGE BIOMED'S NEW DIABETES DEVICE→

BIOTIMES

ORANGE BIOMED, "MEASURING GLYCATED HEMOGLOBIN LEVELS WITH A DROP OF BLOOD"... DIABETES MANAGEMENT MADE EASIER→

BioSpectrum the business of Bio & Health Sciences ASIA EDITION

DIGITAL INNOVATIONS IN DIABETES CARE→

Korea Forbes

2023 FORBES KOREA 30 UNDER 30 FOR SOCIAL IMPACT →

LEADERSHIP BIOS AND HEADSHOTS

YEASEUL PARK

CO-FOUNDER & CEO

Yeaseul Park is the Co-Founder and CEO of Orange Biomed, leading business development and overseeing operations, HR, finance, and corporate development.

She earned her BA in Psychology from Yonsei University and her MBA from Duke University, where she focused on Finance and obtained a certification in Management Science and Technology Management (MSTeM). In 2014, she studied psychology abroad at the University of California, Berkeley.

In 2019, while at Duke University, Park began researching innovative diabetes management technology with Unghyeon Ko, laying the foundation for a novel approach to A1C measurement. Two years later, they co-founded Orange Biomed, turning their research into a breakthrough solution for diabetes care.

Before founding Orange Biomed, she was a Senior Associate at FuturePlay, where she developed strategies for VC investments, in-house ventures, and open innovation initiatives. She is also the Founder of Solgit Co., Ltd., a startup specializing in location-based CRM software, helping enterprises visualize client data on a map-based platform to optimize sales performance.

UNGHYEON KO

CO-FOUNDER & PRESIDENT

Unghyeon Ko is the Co-Founder and President of Orange Biomed, leading the company's technology development and innovation.

Dr. Ko began researching innovative diabetes management technology in 2019 alongside co-founder Yeaseul Park. Two years later, he founded Orange Biomed, established its corporate R&D center, and initiated a clinical trial partnership with Seoul Asan Medical Center.

Prior to Orange Biomed, Dr. Ko conducted postdoctoral research in Biomedical Engineering at Duke University, specializing in microfluidics, soft robotics, the blood-brain barrier, regenerative medicine, and smart materials.

He holds a BS, MS, and Ph.D. in Mechanical Engineering from the Korea Advanced Institute of Science and Technology (KAIST).

EUNYOUNG PARK

CO-FOUNDER & CHIEF RESEARCH OFFICER

Eunyoung Park is the Co-Founder and Chief Research Officer of Orange Biomed. She leads research and clinical studies for the development of medical devices, including the HbA1C meter utilizing microfluidic technology.

Dr. Park earned her BS, MS, and Ph.D. in Mechanical Engineering from the Korea Advanced Institute of Science and Technology (KAIST). During her Ph.D., she focused on physical stimulants and therapeutic strategies for inflammation control and developed an advanced cell culture method, a fundamental technique in cell research.

SEUNGJIN KANG

CO-FOUNDER & CHIEF DEVELOPMENT OFFICER

Seungjin Kang is the Chief Development Officer and Co-Founder of Orange Biomed, overseeing the development of medical devices. He brings expertise in firmware, CFD analysis, product testing, electrical circuit design, BOM processes, composite material manufacturing, mechanical engineering, and PCB artwork.

With over five years of experience in mechanical engineering, Kang previously worked as a Researcher at Hyundai Motor Group, where he specialized in vehicle testing and CFD analysis. His diverse skill set and engineering background contribute to Orange Biomed's cutting-edge medical technology innovations.

Kang earned his Master's degree in Mechanical Engineering from Seoul National University and his Bachelor's degree in Mechanical Engineering from Korea University.

LUKE JO

CO-FOUNDER & MANAGING DIRECTOR

Luke Jo is the Co-Founder of Orange Biomed and the Managing Director at Orangebiomed, Inc., where he oversees Orange Biomed's business operations in the U.S.

Jo brings nearly five years of managerial experience from leading U.S. medical institutions, including Massachusetts General Hospital.

He earned his Bachelor of Science in Biology from Boston University and a Master of Science in Quantitative Management (MSQM) with a focus on Healthcare Management from Duke University's Fuqua School of Business.

SANGWOO KIM

MANUFACTURING DIRECTOR

As part of the Production Team, Sangwoo Kim is the Manufacturing Director at Orange Biomed, overseeing manufacturing operations management, process engineering, and quality management.

With 15 years of experience in semiconductor engineering, he brings extensive expertise in high-precision manufacturing and process optimization.

He earned his Bachelor of Engineering in Electronic Material Engineering from Kwangwoon University and is currently pursuing a Master's degree in Materials Science and Engineering at the University of Seoul.

PATENTS

24 GLOBAL PATENTS FILED

10 U.S. PATENTS FILED

5 U.S. PATENTS REGISTERED

5 KOREA PATENTS FILED

3 INTERNATIONAL (PCT) PATENT APPLICATIONS FILED

2 KOREA PATENTS REGISTERED

2 EUROPE PATENTS FILED

2 JAPAN PATENTS FILED

2 CHINESE PATENTS FILED

TRADEMARKS

2 KOREA TRADEMARKS REGISTERED

1 U.S. TRADEMARK REGISTERED

DESIGN PATENTS

4 DESIGN PATENTS FILED

2 KOREA PATENTS REGISTERED

2 U.S PATENTS FILED

RECENTLY REGISTERED OR FILED

- APPARATUS FOR MEASURING GLYCATION OF RED BLOOD CELLS AND GLYCATED HEMOGLOBIN LEVEL USING PHYSICAL AND ELECTRICAL CHARACTERISTICS OF CELLS, AND RELATED METHODS

- [U.S.] APPARATUS FOR MEASURING PROPERTIES OF PARTICLES IN A SOLUTION AND RELATED METHODS

- [U.S.] SAMPLE-TESTING CARTRIDGE FOR MEASURING GLYCATION OF RED BLOOD CELLS

CERTIFICATIONS

ISO9001: ORANGE BIOMED HAS BEEN CERTIFIED AS HAVING QUALITY CONTROL CAPABILITIES THAT MEET INTERNATIONAL STANDARDS

CONTACT INFORMATION

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FOR CAREER OPPORTUNITIES,
CONTACT RECRUIT@ORANGEBIOMED.COM

PEER REVIEWED ARTICLES

DR. UNGHYEON KO'S
PEER-REVIEWED ARTICLES

01 Ung Hyun Ko*, Vardhman Kumar*, Benjamin Rosen, and Shyni Varghese, "Characterization of bending balloon actuators", Front Robot AI, 9, 2022, 991748

02 Jiwon Kim, Kun-Young Park, Sungwoo Choi, Ung Hyun Ko, Dae-Sik Lim, Jae Myoung Suh, Jennifer H. Shin, "Ceiling culture chip reveals dynamic lipid droplet transport during adipocyte dedifferentiation via actin remodeling", Lap on a Chip, 22, 2022, 3920

03 Hunter Newman, Jiaul Hoque, Yu-Ru V Shin, Gabrielle Marushack, Ung Hyun Ko, Gavin Gonzales, Shyni Varghese, "pH-Sensitive Nanocarrier Assisted Delivery of Adenosine to Treat Osteoporotic Bone Loss", Biomaterials Science, 10(18), 2022, 5340-5355

04 Ting Yang, Ravi Velagapudi, Cuicui Kong, Ung Hyun Ko, Vardhman Kumar, Paris Brown, NathanFranklin, Anabel De Caceres Bustos, Hyunjung Min, Anthony Filiano, Ramona Rodriguiz, WilliamWetsel, Shyni Varghese, Niccolo Terrando, "Protective effects of omega-3 fatty acids in a blood-brain barrier-on-chip model and postoperative delirium in mice", British Journal of Anaesthesia, In press, 2022

05 Kijung Kim, Jinseung Choung, Ung Hyun Ko, Ara Jung, Wonho Choe, Jennifer H. Shin, and Bomi Gweon, "Suppression of Breast Cancer Cell Migration and Epithelial-Mesenchymal Transition by Atmospheric Pressure Plasma", Frontiers in Physics, 25(2), 2021, 159-61

06 Ung Hyun Ko*, Vardhman Kumar*, Yilong Zhou, Jiaul Hoque, Gaurav Arya, and Shyni Varghese, "Microengineered Materials with Self-Healing Features for Soft Robotics", Advanced Intelligent System, 3(7), 2021, 2100005

07 Ung Hyun Ko*, Je-Hyun Han*, Hyo Jun Kim, Seunggyu Kim, Jessie S. Jeon, and Jennifer H. Shin, “Electrospun Microvasculature for Rapid Vascular Network Restoration”, Tissue Engineering and Regenerative Medicine, 18, 2020, 89-97

08 Youngbin Cho, Seung Jung Yu, Jiwon Kim, Ung Hyun Ko, Eun Young Park, Jin Seung Choung, Goro Choi, Daehyun Kim, Eun Jung Lee, Sung Gap Im, and Jennifer H. Shin, “Remodeling of Adhesion Network within Cancer Spheroids via Cell-Polymer Interaction”, ACS Biomaterials Science & Engineering, 6(10), 2020, 5632–5644

09 Jung Bok Lee, Jeong Su Park, Young Min Shin, Da Hyun Lee, Ung Hyun Ko, Jeong-Kee Yoon, Dae-Hyun Kim, YongTae Kim, Soo Han Bae, and Hak-Joon Sung, “Implantable vascularized liver chip for cross-validation of disease treatment with animal model”, Advanced Functional Materials, 29, 2019, 1900075

10 Joon Seok Lee, Hyeon Jun Jeon, Jeong Woo Lee, Kang Young Choi, Jung Dug Yang, Byung Chae, Cho, Eun Jung Oh, Tae Jung Kim, Ung Hyun Ko, Jennifer H. Shin, Sewha Jeon, Young Jig Lee, and Ho Yun Chung, “Effect of keratinocytes on myofibroblasts in hypertrophic scars”, Aesthetic Plastic Surgery, 43(5), 2019, 1371-1380

11 Ung Hyun Ko, Jongjin Choi, Jinseung Choung, Sunghwan Moon, and Jennifer H. Shin, “Physicochemically Tuned Myofibroblasts for Healing Strategy in Severe Wound”, Scientific Reports, 9, 2019, 16070

12 Daniel A. Balikov, Spencer W. Crowder, Jung Bok Lee, Yunki Lee, Ung Hyun Ko, Mi-Lan Kang, Won Shik Kim, Jennifer H. Shin, and Hakjoon Sung, “Aging donor-derived human mesenchymal stem cells exhibit reduced senescence-associated activities following serial expansion on a PEG-PCL copolymer substrate”, International Journal of Molecular Sciences, 19(2), 2018, 359

13 Ung Hyun Ko, Sukhee Park, Hyunseung Bang, Mina Kim, Hyunjun Shin, and Jennifer H. Shin, Promotion of Myogenic Maturation by Timely Application of Electric Friel along the Topographical Alignment, Tissue Engineering Part A, 24(9-10), 2018, 752-760

14 Daniel A. Balikov, Sonia K. Brady, Ung Hyun Ko, Jennifer H. Shin, Jose M. de Pereda, Arnoud Sonnenberg, Hak-Joon Sung, and Matthew J. Lang, Nesprin-cytoskeleton interface probed directly on single nuclei is a mechanically rich system and subject to nuclear history, Nucleus, 8(5), 2017, 534-547

15 Youngjin Kim, Hyeonseok Kim, Ung Hyun Ko, Youjin Oh, Ajin Lim, Jong-Woo Sohn, Jennifer H. Shin, Hail Kim, and Yong-Mahn Han, Islet-like organoids derived from human pluripotent stem cells efficiently function in the glucose responsiveness in vitro and in vivo, Scientific Reports, 6, 2016, 35145

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17 Bomi Gweon, Mina Kim, Kijung Kim, Jinseung Choung, Minam Lee, Ung Hyun Ko, Wonho Choe, and Jennifer H. Shin, “Role of atmospheric pressure plasma (APP) in would healing: APP induced anti-fibrotic process in human dermal fibroblasts (HDFs)”, Experimental Dermatology, 25(2), 2016, 159-161

18 Suk-Hee Park, Ung Hyun Ko, Mina Kim, Dong-Yol Yang, Kahp-Yang Suh and Jennifer H. Shin, “Hierarchical multilayer assembly of an ordered nanofibrous scaffold via thermal fusion bonding”, Biofabrication, 6(2), 2014, 024107

19 Sukhyun Song, Hana Han, Ung Hyun Ko, Jaemin Kim, and Jennifer H. Shin, “Collaborative effects of electric field and fluid shear stress on fibroblast migration”, Lap on a Chip, 13(8), 2013, 1602-1611

20 Bicheng Han, Daeyeon Kim, Ung Hyun Ko and Jennifer H. Shin, “A sorting strategy for C. elegans based on size-dependent motility and electrotaxis in a micro-structured channel”, Lap on a Chip, 12, 2012, 4128-41

DR. EUNYOUNG PARK'S
PEER-REVIEWED ARTICLES

01 E. Park, M. Lee, P. M. L. Steve, E. Lee, S. Im, and J. H. Shin, "Wettability-based cell sorting: exploring isolation strategy for mixed primary glial cell population", In press (Advanced Materials Interfaces)

02 E. Ko, M. L. Poon, E. Park, Y. Cho, J. H. Shin, "Engineering 3D cortical spheroids for an in vitro schemic stroke model", ACS Biomaterials Science & Engineering, 2021

03 E. Park, J. G. Lyon, M. Alvarado-Velez, M. I. Betancur, N. Mokarram, J. H. Shin, and R. V. Bellamkonda, "Enriching neural stem cell and anti-inflammatory glial phenotypes with electrical stimulation after traumatic brain injury in male rats", Journal of Neuroscience Research, 2021

04 Y. Cho, S. J. Yu, J. Kim, U. H. Ko, E. Park, J. S. Choung, G. Choi, D. Kim, E. Lee, S. G. Im, and J. H. Shin, "Remodeling of Adhesion Network within Cancer Spheroids via Cell–Polymer Interaction", ACS Biomaterials Science and Engineering, 6, 10, 5632-5644, 2020

05 J.-S. Park, G. Oh, J. Kim, E. Park, and J. H. Shin, "Reversible Thermal Gradient Device to Control Biased Thermotactic Response of C. elegans", Analytical Sciences, 35, 12, 1367-1373, 2019

06 Y. Cho, E. Park, E. Ko, J.-S. Park and J. H. Shin, "Recent advances in biological uses of traction force microscopy", Review in International Journal of Precision Engineering and Manufacturing, October 2016

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