

# Sponsored Session 3

Exploring the CGM Use for Wellness Beyond  
Glycemic Control- Potential and Worries

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## Chairpersons

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**Young Sung Suh**

Keimyung University, Korea

**Kyoung-Kon Kim**

Gachon University, Korea

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## Speakers

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**Jae Hyun Bae**

Seoul National University, Korea

**Jun Sung Moon**

Yeungnam University, Korea

**Sun-Joon Moon**

Sungkyunkwan University, Korea



## Jae Hyun Bae

Seoul National University, Korea

### • Education

Period	Affiliation	Position
– 2017-2020	Seoul National University College of Medicine	Ph.D.
– 2011-2013	Seoul National University College of Medicine	M.S.
– 2002-2008	Seoul National University College of Medicine	M.D.

### • Affiliations / Experience

Period	Affiliation	Position
– 2024-Present	Seoul National University Hospital	Clinical Associate Professor
– 2018–2024	Korea University Anam Hospital	Clinical Assistant Professor, Clinical Associate Professor
– 2017–2018	Seoul National University Hospital	Fellow
– 2008–2013	Seoul National University Hospital	Intern, Resident

### • Committee Memberships

- Committee of General Affairs, Korean Society for the Study of Obesity
- Committee of Academic Affairs, Korean Society for the Study of Obesity
- Committee of Research, Korean Society for the Study of Obesity
- Committee of Clinical Guidelines, Korean Society for the Study of Obesity
- Committee of Exercise, Korean Society for the Study of Obesity

### • Publications

- Bae JH, Park EH, Lee HK, Yoon KH, Won KC, Kim HM, Kim SG. Enhancing Diabetes Care through a Mobile Application: A Randomized Clinical Trial on Integrating Physical and Mental Health among Disadvantaged Individuals. *Diabetes Metab J.* 2024;48(4):790-801
- Kim JY, Jin SM, Kang ES, Kwak SH, Yang Y, Yoo JH, Bae JH, Moon JS, Jung CH, Bae JC, Suh S, Moon SJ, Song SO, Chon S, Kim JH. Comparison between a tubeless, on-body automated insulin delivery system and a tubeless, on-body sensor-augmented pump in type 1 diabetes: a multicentre randomised controlled trial. *Diabetologia.* 2024;67(7):1235-1244
- Bea S, Son H, Bae JH, Cho SW, Shin JY, Cho YM. Risk of thyroid cancer associated with glucagon-like peptide-1 receptor agonists and dipeptidyl peptidase-4 inhibitors in patients with type 2 diabetes: A population-based cohort study. *Diabetes Obes Metab.* 2024;26(1):108-117
- Bae JH, Lim H, Lim S. The Potential Cardiometabolic Effects of Long-Chain  $\omega$ -3 Polyunsaturated Fatty Acids: Recent Updates and Controversies. *Adv Nutr.* 2023;14(4):612-628

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## **The Expanding Role of CGM in Wellness: From Glycemic Control to Holistic Health**

Jae Hyun Bae (Seoul National University, Korea)

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Continuous glucose monitoring (CGM) was initially developed to manage diabetes by providing real-time insights into glucose levels, enabling more precise glycemic control. Over time, CGM technology has advanced significantly and now offers a wealth of data that can optimize overall health and well-being. Modern CGM systems track and analyze glucose fluctuations in response to various dietary choices, physical activities, and lifestyle factors. By understanding these patterns, individuals can make informed decisions about their nutrition and exercise routines, leading to improved energy levels, better weight management, and enhanced overall health. Furthermore, the integration of CGM with wearable fitness trackers provides a comprehensive view of health metrics, fostering a more personalized and proactive approach to health management. This lecture explores the evolution of CGM technology and its expanding role beyond diabetes management into broader aspects of wellness and holistic health.



## Jun Sung Moon

Yeungnam University, Korea

### • Education

Period	Affiliation	Position
- 2019	Yeungnam University Graduate School	Ph.D.
- 2012	S.A.A Society for American Archaeology	M.Sc.

### • Affiliations / Experience

Period	Affiliation	Position
- 2024-Present	Yeungnam Universtiy Hospital	Professor
- 2020-2024	Society for American Archaeology	Associate professor
- 2014-2020	Society for American Archaeology	Assistant professor

### • Committee Memberships

- Korean Society for the Study of Obesity (KSSO)

### • Publications

- Karunakaran U, Elumalai S, Chung SM, Maedler K, Won KC, Moon JS. Mitochondrial aldehyde dehydrogenase-2 coordinates the hydrogen sulfide - AMPK axis to attenuate high glucose-induced pancreatic  $\beta$ -cell dysfunction by glutathione antioxidant system. *Redox Biol.* 2024 Feb;69:102994
- Elumalai S, Karunakaran U, Won KC, Chung SM, Moon JS. Perfluorooctane sulfonate-induced oxidative stress contributes to pancreatic  $\beta$ -cell apoptosis by inhibiting cyclic adenosine monophosphate pathway: Prevention by pentoxifylline. *Environ Pollut.* 2023 Mar 1;320:120959
- Moon JS, Kim NH, Na JO, Cho JH, Jeong IK, Lee SH, Mok JO, Kim NH, Chung DJ, Cho J, Lee DW, Lee SW, Won KC. Safety and Effectiveness of Empagliflozin in Korean Patients with Type 2 Diabetes Mellitus: Results from a Nationwide Post-Marketing Surveillance. *Diabetes Metab J.* 2023 Jan;47(1):82-91
- Moon JS, Hong JH, Jung YJ, Ferrannini E, Nauck MA, Lim S. SGLT-2 inhibitors and GLP-1 receptor agonists in metabolic dysfunction-associated fatty liver disease. *Trends Endocrinol Metab.* 2022 Jun;33(6):424-442

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## **Current Evidence of CGM Use in Weight Management**

Jun Sung Moon (Yeungnam University, Korea)

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Continuous Glucose Monitoring (CGM) has emerged as a valuable tool in diabetes management, providing real-time glucose data to patients and healthcare providers. Recently, its potential for weight management has received considerable attention. I will review the current evidence on the use of CGM for weight management in diverse populations, including individuals with diabetes, prediabetes, and those without diabetes, both with and without obesity. I will also critically evaluate the strengths and limitations of the current evidence, highlighting both promising results and areas that require further investigation. We will examine the various mechanisms by which CGM might influence weight management, such as increased awareness of glucose fluctuations, improved dietary choices, and increased motivation for lifestyle changes. This will be placed in the broader context of personalized nutrition and precision medicine, and how CGM might fit into comprehensive weight management strategies will be discussed.



## Sun-Joon Moon

Sungkyunkwan University, Korea

### • Education

Period	Affiliation	Position
– 2018-2020	Seoul National University, Medicine	Ph.D.
– 2016-2018	Seoul National University, Medicine	M.S.
– 2005-2009	Seoul National University, Medicine	B.S, M.D.

### • Affiliations / Experience

Period	Affiliation	Position
– 2023-Present	Kangbuk Samsung Hospital, Internal Medicine, Endocrinology and Metabolism	Assistant Professor
– 2020-2023	Kangbuk Samsung Hospital, Internal Medicine, Endocrinology and Metabolism	Clinical Assistant Professor
– 2019-2020	Seoul National University Hospital, Internal Medicine, Endocrinology and Metabolism	Clinical Assistant Professor
– 2013-2019	Seoul National University Hospital, Internal Medicine, Endocrinology and Metabolism	Resident/ Fellow

### • Committee Memberships

- Korean Diabetes Association
- Korean Diabetes Association
- Pancreas Failure TFT, Korean Diabetes Association

### • Publications

- Importance of FDA-Integrated Continuous Glucose Monitors to Ensure Accuracy of Continuous Glucose Monitoring. *JDST* 2024
- Effectiveness of Real-Time Continuous Glucose Monitoring (Dexcom G6) Among Cardiac Surgery Patients: A Randomised Controlled Trial. *EASD Abstract* 2024
- Efficacy of Patch SAP (EOPatch) compared to Other Intensive Insulin Therapies with CGM in T2D: a Three-arm, Multicenter, Randomized controlled trial. *ATTD* 2024 Oral presentation
- Efficacy of intermittent short-term use of a real-time continuous glucose monitoring system in non-insulin-treated patients with type 2 diabetes: A randomized controlled trial. *Diabetes Obes Metab.* 2023
- Current Advances of Artificial Pancreas Systems: A Comprehensive Review of the Clinical Evidence. *Diabetes Metab J.* 2021

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## **Life Style Modification with CGM, How to Do?**

Sun-Joon Moon (Sungkyunkwan University, Korea)

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In this last lecture, we will overview the evidence studies that used CGM for life style modification. CGM studies on how to do diet and exercise are effective for glycemic control or wellness will be introduced, and the methodology of how to use CGM will also be examined.