



GIOMER/S-PRG FILLER

The 3rd INTERNATIONAL WEBINAR

A BIOACTIVE INNOVATION ORIGINATED IN JAPAN TO THE WORLD

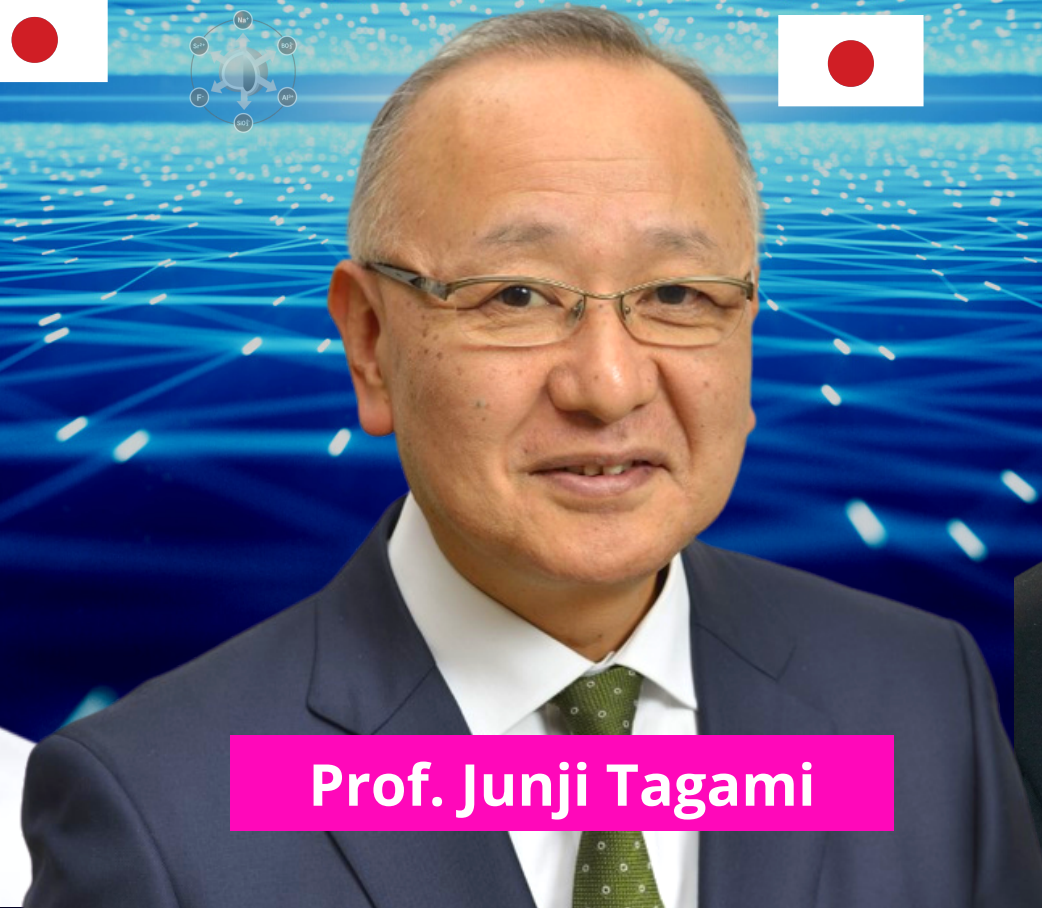


FROM THE DEVELOPMENT OF A NOVEL BIOACTIVE MATERIAL
BASED ON THE SCIENTIFIC EVIDENCE TOWARDS THE FUTURE

19th
Mar/2022



Prof. Satoshi Fukumoto



Prof. Junji Tagami



Prof. Ben Amaechi



19th of March 2022
05:00pm to 08:30pm (Japan Timezone)



Free Online Event (Zoom Webinar)
Reserve your Spot

19th of March 2022
04:00pm to 07:30pm (Singapore Timezone)



**Our
Moderator**



GIOMER. Technology Worth Spreading.



Giomer PRG
Technology



Moderator

Prof. Elham Fawzi 

- Professor/ Conservative Dentistry, Cairo University, EGYPT
- Course Director Doctorate Degree, Cairo University, EGYPT 2006-till present
- Member Cairo University-IAUCUC committee 2006-till present
- Former Vice Director of the Dental Educational Hospital, Cairo University
- Authorship for more than 26 publications focusing on Bonding and Cariology
- Principal Supervisor for 23 Master and PhD theses
- Founder and Former Research Office Director, Queen Medical Research Office, Doha/ Qatar
- Founder of Tissue culture and stem cell research lab Queen Medical Research Office, Doha/ Qatar
- Course Director MRD UK program MUST University 2006
- Peer Reviewer Journal of Adhesive Dentistry
- Member of IADR, AAC, EAD, ISC



Prof. Satoshi Fukumoto



Professor and Chair, Pediatric Dentistry and Special Needs Dentistry, Kyushu University
Professor and Chair, Department of Pediatric Dentistry, Tohoku University Graduate School of Dentistry

- Professor and Chair, Pediatric Dentistry and Special Needs Dentistry, Kyushu University
- Professor and Chair, Department of Pediatric Dentistry, Tohoku University Graduate School of Dentistry
- Faculty of Dental Science
- DDS, PhD, Nagasaki University School of Dentistry
- Visiting Researcher, National Institute of Dental and Craniofacial Research (NIDCR/NIH), USA

Prof. Junji Tagami



Director, Advanced Dental Center, Quartz dental Clinic
Professor Emeritus, Tokyo Medical and Dental University

- Former Dean, Faculty of Dentistry and Graduate School of Tokyo Medical and Dental University
- Former Director of Board, Tokyo Medical and Dental University
- DDS, PhD, Tokyo Medical and Dental University
- Doctor of Medicine, Honoris Causa, King's College London
- IADR Distinguished Scientist (Wilmer Souder) Award (2017)



Prof. Bennet T. Amaechi



Professor and Director of Cariology,
Department of Comprehensive Dentistry,
School of Dentistry, University of Texas Health San Antonio

- BDS, MS, PhD, MFDS RCPS (Glasg), FADI
- President, IADR Cariology Group (2010-2011)
- President, Local of chapter American Association of Dental Research (2006-2007)
- Member, Advisory Board of the European Organization for Caries Research (2005-2008)
- Presidential award winner for Sustained Excellence in Teaching (2019)

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Agenda

Moderator: Prof. Elham Fawzi BDS; MSc; PhD



Speaker 01



**Prof. Satoshi
Fukumoto**

Professor and Chair, Pediatric Dentistry and Special Needs Dentistry, Kyushu University
Professor and Chair, Department of Pediatric Dentistry, Tohoku University Graduate School of Dentistry



Speaker 02



Prof. Junji Tagami

Director, Advanced Dental Center, Quartz dental Clinic
Professor Emeritus, Tokyo Medical and Dental University



Speaker 03



**Prof. Bennet T.
Amaechi**

Professor and Director of Cariology,
Department of Comprehensive Dentistry,
School of Dentistry, University of Texas Health San Antonio



Title

Application of S-PRG filler for the purpose of modifying the properties of enamel in pediatric dentistry

Abstract

Enamel is a highly calcified crystal of calcium phosphate. It is known that magnesium and carbonate ions are contained in the tooth substance during the process of tooth formation, and the presence of these ions inhibits the resistance to acid. On the other hand, these ions are replaced by calcium and phosphate ions in saliva after the eruption of the tooth, and the enamel reaches maturity. In recent years, many permanent and deciduous tooth enamel hypoplasia such as MIH and HSPM have been observed, and these hypoplasia causes severe caries, which has become an extremely serious problem in children. To solve this problem, we are trying to improve the properties of enamel using various products containing S-PRG filler. Products containing S-PRG fillers have been developed in a wide variety of areas such as tooth surface coating materials, sealants, restoration resins and dentifrices. The use of these materials is also expected to have the effect of improving the properties of enamel. In this seminar, we will introduce a new caries prevention using S-PRG filler.

Title

Functions of the ions eluted from S-PRG materials

Abstract

The eluted ions from the S-PRG filler containing materials exhibit various functions, such as prohibition of biofilm attachment, anti-demineralization, remineralization, modification of apatite crystal, and acid-buffering effect. Each ion was confirmed its function. Particularly, Strontium, Borate and Fluoride ions were involved during calcium phosphate nucleation to form modified nano-hydroxyapatite. The acid buffering effect was shown with the borate ion. As the results of those effects of ions, the various materials with S-PRG technology were proven to contribute to increase the acid resistance and the caries prevention.

Title

Giomer/S-PRG filler Applications in Preventive Dentistry

Abstract

Although fluoride interventions have shown the most consistent benefit in preventing caries development and decreasing the progression of early lesions, caries can still develop in high risk individuals. This justifies the search for other strategies that could work either better than or synergistically with fluoride. An increasing number of reports have shown that Surface pre-reacted glass-ionomer (S-PRG) fillers, a bioactive material that has been incorporated into various preventive dental materials (varnish, toothpaste, pits & fissure sealants, resin barrier coatings, mouth guards, and toothbrush filaments), has the capability to release and recharge multiple ions such as F^- , Al^{3+} , BO_3^{3-} , Na^+ , SiO_3^{2-} , and Sr^{2+} at high concentrations, and as such has the potential to remineralize initial caries lesions, inhibit tooth surface demineralization, control biofilm formation on the tooth surface, and prevent erosive tooth wear. Its caries inhibitory effect is certainly superior to conventional fluoride. This presentation will provide an overview of research data providing high-level evidence in support of the anti-caries, anti-erosion, and anti-biofilm actions of S-PRG fillers, thus highlighting the benefits of using S-PRG fillers in dentistry, especially for prevention of oral diseases.



GIOMER/S-PRG FILLER



The 3rd INTERNATIONAL WEBINAR

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19th of March 2022
05:00pm to 08:30pm (Japan Timezone)



19th of March 2022
02:00am to 05:30am (USA Timezone)



19th of March 2022
10:00am to 01:30pm (Egypt Timezone)



19th of March 2022
04:00pm to 07:30pm (Singapore Timezone)



19th of March 2022
05:00am to 08:30am (Brazil Timezone)



19th of March 2022
09:00am to 12:30pm (Germany Timezone)

