

2021年6月12日(土)

Line A

国際シンポジウム ※日本語字幕あり | Live配信抄録 | 国際シンポジウム

## 国際シンポジウム

### The Role of Gerodontology in the Centenarian Era - Toward the International Consensus - 〈専〉 〈日〉

座長：松尾 浩一郎（東京医科歯科大学大学院地域・福祉口腔機能管理学分野）、多田 紗弥夏（Faculty of Dentistry/ National University of Singapore）

15:40 ～ 17:40 Line A (ライブ配信)

#### [ISY-1] Approach to the Centenarian Era from the dentistry in Japan

○渡邊 裕 Yutaka Watanabe<sup>1</sup>（1. 北海道大学 大学院歯学  
研究院 口腔健康科学分野 高齢者歯科学教室 /

Gerodontology, Department of Oral Health Science,  
Faculty of Dental Medicine, Hokkaido University）

#### [ISY-2] Gerodontology in the centenarian era: working towards a global consensus

○Murali Srinivasan<sup>1</sup>（1. Clinic Director and Chair, Clinic  
of General, Special care and Geriatric Dentistry, University  
of Zurich, Zurich, Switzerland.）

#### [ISY-3] The Role of Gerodontology in the Centenarian Era- An USA Contribution to the International Consensus

○Leonardo Marchini<sup>1</sup>（1. The University of Iowa College  
of Dentistry and Dental Clinics）

#### [ISY-4] The Role of Gerodontology in the Centenarian-Era: toward the International Consensus, - “ the inductive perspective of Taiwan” -

○Andy Yen-Tung Teng<sup>1</sup>（1. Taiwan Academy of  
Geriatric Dentistry (TAGD) &Kaohsiung Medical  
University, Taiwan, ROC.）

#### [ISY-Discussion] 総合討論

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### The Role of Gerodontology in the Centenarian Era - Toward the International Consensus - 〈専〉 〈日〉

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#### 【松尾 浩一郎先生 略歴】

Koichiro Matsuo

Professor, Oral Health Sciences for Community Welfare, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University

Dr. Matsuo earned both DDS and PhD degrees from Tokyo Medical and Dental University. He joined the Department of Physical Medicine and Rehabilitation, Johns Hopkins University as a post-doctoral research fellow for three years (2002-05) and an assistant professor for three years (2005-08). He was back to Japan in 2008, and after working at Matsumoto Dental University (2008-12) and Fujita Health University (2013-21), appointed to current position in 2021.

His clinical interests include geriatric dentistry for frail elderly individuals. His recent research has focused on oral health in frail older individuals and fundamental understanding of physiology of mastication and swallowing.

#### 【多田 紗弥夏先生 略歴】

・ Name & Affiliation

Sayaka Tada, DDS, PhD

Assistant Professor

Discipline of Operative Dentistry, Endodontics & Prosthodontics,

Discipline of Primary Dental Care & Population Health

Faculty of Dentistry,

National University of Singapore,

Singapore

・ Short Biography

Dr. Sayaka Tada is Assistant Professor of the Discipline of Operative Dentistry, Endodontics & Prosthodontics as well as the Discipline of Primary Dental Care & Population Health at National University of Singapore since 2018. Currently, she is working as a Principle Investigator of the research project

She received her D.D.S. degree in 2007 and Ph.D. degree in 2012 from Osaka University, Japan. In 2014, she was certificated as prosthodontists from Japanese Society of Prosthodontics. After post-doc training in University College Cork (Ireland) and Osaka University (Japan), she worked as Assistant Professor of the Preventive Dentistry (WHO collaborating center) at Niigata University (Japan) between 2016 and 2017. Currently her major interest is about the management of partially dentate older adults, which ranges from a clinical decision-making process to a public healthcare system.

#### 【シンポジウム要旨】

超高齢社会における歯科の役割についての考え方は、日本同様に世界各国でも変化してきていると考えられる。本企画では、人生100年時代における歯科医療がどのように関われるか、MOUを締結しているECGやTAGDの他アメリカSCDから講師を推薦してもらい、JSGからの演者とともにWebにて発表および討議を行う。

【このセッションに参加すると】

- ・ 人生100 年時代における歯科医療に対する世界各国の考え方を知ることができます。
  - ・ 各国の超高齢社会への今後の対応を知ることができます。
  - ・ 世界各国の高齢者歯科学に関する基礎知識を得られます。
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                      ○渡邊 裕 Yutaka Watanabe<sup>1</sup> (1. 北海道大学 大学院歯学研究院 口腔健康科学分野 高齢者歯科学教室 / Gerodontology, Department of Oral Health Science, Faculty of Dental Medicine, Hokkaido University)
- [ISY-2]            Gerodontology in the centenarian era: working towards a global consensus  
                      ○Murali Srinivasan<sup>1</sup> (1. Clinic Director and Chair, Clinic of General, Special care and Geriatric Dentistry, University of Zurich, Zurich, Switzerland.)
- [ISY-3]            The Role of Gerodontology in the Centenarian Era- An USA Contribution to the International Consensus  
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- [ISY-Discussion] 総合討論

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## [ISY-1] Approach to the Centenarian Era from the dentistry in Japan

○渡邊 裕 Yutaka Watanabe<sup>1</sup> (1. 北海道大学 大学院歯学研究院 口腔健康科学分野 高齢者歯科学教室 / Gerodontology, Department of Oral Health Science, Faculty of Dental Medicine, Hokkaido University)

### 【略歴】

1994 Graduated from Hokkaido University School of Dentistry,

1994-1995 Resident; Tokyo Metropolitan Geriatric Medical Center

1995-2012 Assistant professor, lecturer; Tokyo dental college

2001-2002 Visiting researcher; Philipps-Universität Marburg School of Dentistry

2012-2016 Chief; Department of Oral Diseases Research National Center for Geriatrics and Gerontology,

201-2019 Vice-Chief; Research on Social and Human Sciences Tokyo Metropolitan Institute of Gerontology

2019- Associate professor; Gerodontology, Department of Oral Health Science, Faculty of Dental Medicine, Hokkaido University

Looking back over the past 30 years, the average life expectancy of a Japanese has lengthened by 9 years from 75 to 84 years, and the rate of aging increased from 10% to 28%. In dentistry, the percentage of people reaching 8020 (having 20 or more teeth at the age of 80 years) has rapidly increased from 8.2% to 51.2%.

Simultaneously, gerodontology in Japan reached several turning points. One is that the effectiveness of the oral care advocated in Japan for preventing pneumonia was clarified. Subsequently, professionals from other fields have become interested in oral health diseases other than dental caries and periodontal disease, and cooperation between dentistry and other professions has progressed significantly, leading to oral function management in cancer therapies and acute care hospitals. Simultaneously, dysphagia rehabilitation was established through dental and medical cooperation and has rapidly infiltrated dentistry, together with the keyword aspiration, which has significantly modified dental education. The association between oral function and prevention of long-term care has been reported in fields other than medicine, and improvements in oral function and oral hygiene management are now positioned within long-term care insurance. Areas where dentists and dental hygienists are active within long-term care settings and the community-based integrated care system have expanded. These turning points have not only affected interprofessional collaboration and dental education but have also presented the outcomes of pneumonia, aspiration, and long-term nursing, which were previously not addressed in dentistry. It has become the impetus for significant change in subsequent gerodontology research.

A 6-year cohort study on long-term care prevention demonstrated that a decline in masticatory ability was associated with the need for long-term care. In 2018, sensational research results were published indicating that oral frailty was associated with physical frailty, sarcopenia, the need for long-term care, and death, which had a great impact not only on the dental community but also on medical welfare in Japan.

Thus, Japanese gerodontology is characterized by clear and easy-to-understand outcomes, such as pneumonia and long-term care, with dental hygienists being active not only in clinical practice but also in research. This is a great advantage for Japanese gerodontology, not found in dental research in other countries.

Significant developments are anticipated in the future of Japanese gerodontology due to the clear outcomes to date and participation of dental hygienists in research.

In this lecture, I would like to consider how Japanese dentistry should approach the Centenarian Era based

on these background.

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## [ISY-2] Gerodontology in the centenarian era: working towards a global consensus

○Murali Srinivasan<sup>1</sup> (1. Clinic Director and Chair, Clinic of General, Special care and Geriatric Dentistry, University of Zurich, Zurich, Switzerland.)

### 【略歴】

**Prof. Dr. Murali Srinivasan**

Zurich, Switzerland.

Dr. med. dent., BDS, MDS, MBA, MAS, Prosthodontist University of Zurich, Clinic of General-, Special care-, & Geriatric Dentistry.

Prof. Murali Srinivasan is the chair of the Clinic of General-, Special care-, and Geriatric Dentistry at the University of Zurich in Switzerland.

He received his dental degrees from India and from Switzerland. He was in specialist private practice in Dubai before he moved to Geneva as an ITI Scholar in 2011; he was elected ITI Fellow in 2013. Currently, he is the past-president of the European College of Gerodontology. Professor Srinivasan has received many awards in the field of geriatric research. His current focus is on the clinical applications of CAD/CAM technology in removable prosthodontics and geriatric dentistry.

The number of elderly adults is increasing globally, and natural teeth are being retained to an advanced age-segment. Although this highlights a significant amount of success for the preventive dental health programs, awareness, and access to quality dental care, it further signifies that the need for dental treatments may become necessary only later in life. Geriatric dentistry may in fact become routine or mainstream dentistry quite rapidly in the not so distant future. A global consensus is warranted, in the oral health care provision for elders, in the education of the caregivers, for amendments of the oral as well as general health policies, and for an active empowerment of all stake-holders involved. This presentation will discuss the oral health policy guidelines for elders in Europe, which was recommended by the European College of Gerodontology and European Geriatric Medicine Society. The lecture will present the European Consensus on the standards of oral health care for dependent elders in industrialized nations, the patients' perspectives in receiving care, and the current attitudes of the Swiss oral health care professionals towards older adults. The presentation will further discuss, briefly, the current gerodontology curriculum followed in Switzerland along with solutions for improving access to oral care for institutionalized older adults.

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## [ISY-3] The Role of Gerodontology in the Centenarian Era- An USA Contribution to the International Consensus

○Leonardo Marchini<sup>1</sup> (1. The University of Iowa College of Dentistry and Dental Clinics)

### 【略歴】

Dr. Marchini is an Associate Professor at the University of Iowa College of Dentistry and Dental Clinics, and his current research focus includes geriatric dentistry, and patient satisfaction with dental treatments. He is

also interested on researching about the best way to teach dentistry, with particular interest to geriatric dentistry. Currently, Dr. Marchini is the Chair of the Special Care Dentistry Association Council of Geriatric Dentistry and the Councilor of the American Dental Education Association's Gerontology and Geriatric Section.

In 2018., there were about 94,000 centenarians in the United States. This number is expected to grow to 589,000 in the year 2060, a 6-fold increase. In the most recent available report (2014) for an US centenarian cohort, it was shown that 36.5% of the centenarians were edentulous, 66.7% were denture wearers, and only 28.6% reported having excellent or very good health of teeth and gums. Although these oral health indicators of this sample of centenarians are better compared to their respective birth cohorts, these indicators clearly show the need for improving the way oral health care is delivered to older adults. It is even more important as the relationship between oral health and systemic health and wellbeing has received strong support from recent research efforts. However, persistent barriers to efficient oral health care delivery for aged populations have been reported in the USA for decades. Many barriers are related to socio-economic aspects, such as the lack of dental insurance after retirement (as dental insurance is traditionally tied to employment in the USA) and transportation issues. However, many barriers are related to the dental workforce and how future dentists are prepared to provide oral health care for an aging population. Currently, the USA has an insufficient number of dentists with advanced training in geriatric dentistry, and only a small number (five) advanced courses in this field. One of the main reasons for the reduced number of dentists with advanced training in geriatrics is the lack of interest on treating older adults. This negative attitude is rooted in the most common form of social prejudice: ageism. Ageism is the prejudice against a person based on age, and it usually translates into negative attitudes towards older adults. These negative attitudes have wide social repercussions, including but not limited to discrimination of older adults in the workplace, older adults' loneliness, mistreatment of older adults, and discrimination of older adults in the health care system. Many reports have shown that discrimination based on age reflects in clinical practice and decision-making among health care providers, as well as health care policies. For instance, age-based disparities happen for diagnostic procedures and types of treatment offered in various fields of medicine, including cardiology, oncology, and stroke treatment. In dentistry, ageism seems to be prevalent among dental students, and the ability of dental education to change dental students attitudes toward older adults have been source of much debate. This lecture will present the basic demographics about centenarians in the USA, their oral health characteristics, the barriers for oral health care faced by USA older adults, and then will focus on current nationwide efforts to prepare the future USA dental workforce to provide appropriate oral health care for the growing population of older adults. The debate about these barriers and enablers might be useful for possible application in other national contexts, provided the much-needed adaptations are made.

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## [ISY-4] The Role of Gerodontology in the Centenarian-Era: toward the International Consensus, - “the inductive perspective of Taiwan” -

○Andy Yen-Tung Teng<sup>1</sup> (1. Taiwan Academy of Geriatric Dentistry (TAGD) &Kaohsiung Medical University, Taiwan, ROC.)

### 【略歴】

Andy Y-T. Teng, DDS., MS., Ph.D., is President of Taiwan Academy of Geriatric Dentistry (TAGD) and has held full-time academic professorial positions in North America (Univ. of Toronto &Western Ontario, Canada

&Univ. of Rochester, NY, USA) and Taiwan in the past 30-years, where he presently serves as Professor/Director at Center for Osteo-immunology &Biotechnology Research (COBR), College of Dental Medicine, Kaohsiung Medical University &affiliated Hospital, Taiwan. Teng has actively continued to disseminating and dedicatedly promoting to pioneer &explore the research field of osteo-immunology internationally, regarding the molecular/cellular signaling mechanisms on periodontal disease, arthritis, MRONJ &osteoporosis for potential applications via clinical vs. basic/translational sciences, including the oral-systemic medical links of modern gerodontology and novel psychomotor innervations onto developing early childhood caries (ECC) in his recent elaborations/endeavors.

**Background:** The traditional medical and oral health-care systems &services have been challenged by ongoing epidemic in the frail elderly carrying complex systemic disorders and the dilemmas of multi-comorbidity associated with ageing (i.e., geriatric syndrome) intertwined with mental deficits in the ageing population world-wide, whose mounting scientific evidence vary considerably in recent decays.

**Methods:** The materials to be presented will uncover the mixes of evidence-based databases (>26 regional/national reports, robust literature searches, the concerned issues: i.e., cardiovascular disorders, diabetes, strokes &dementia, cancers/oncologic therapies &drugs, and selected clinical targets) employed to address and sum-up the enhanced risks analyzed upon dealing with oral-systemic medical links in the frail geriatrics over the comorbidities vs. mortalities in general, thereby revealing such “silent-epidemic” factual. In Taiwan, the frail elderly have been impeded by significant burdens of systemic illnesses with high prevalence/incidences, as £12% reported being completely healthy only (~2016-2020); in parallel to top-rated diabetes-associated renal dialyses, G-I cancers (e.g., colon, breast, lung), naso-gastric tubing in long-term care facilities and the psychiatric/stress medications, etc., where they have collectively signified the worsening rates of oral health issues (i.e., caries>90%, periodontal diseases>80%, missing teeth/mixed edentulism >86% and dysphagia/chewing difficulty >30%, etc.).

**Results:** Herein, it is summarized to address: **i)** the clinical manifests and medications associated with systemic disorders, osteoporosis, heart diseases and strokes &DM (i.e., 85% taking >5 prescribed drugs), **ii)** notably, 1/4~1/3 vs. 30~40% of the frail elderly carried high rates of edentulism vs. untreated oral diseases, respectively, regardless their socio-economic status, **iii)** the prevalence of root caries and untreated caries in the elderly is a significant oral health concern, which underlines a potential threat, esp., to the frail ones with multi-comorbidities. It is suggested that (pre)-frailty, oral hypo-function, difficult in chewing &swallowing, the conditional uses of dental prostheses, dysphagia, malnutrition, dementia, multi-comorbidity &poly-pharmacy, progressive geriatric syndrome, etc., interactively contribute to the poorer quality of oral health, thus leading subsequently to systemic losses of functions and survival capacity, gradually rendering the outcomes through dental treatments being ineffective.

**Summary:** There is “ongoing” silent-epidemic among the frail elderly involving concerned matters described above, in Taiwan; when delivering the modern therapies for oral and medical health-care services. Importantly, we must systematically incorporate the risk assessments for the frail elderly with the sustainable evidence to ensuring the elder subject’s capacity upon engaging the stress/distress produced from dental/medical procedures; esp. how to prevent and manage the critical life-endangering situations, so that the long-term prognoses and outcomes become more favorable. This presentation will also touch-up some key issues and the challenges involved in her educational, academic vs. professional training courses to producing mature geriatric specialists leading towards a humane society with modern gerodontology for the coming years in Taiwan.

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## [ISY-Discussion] 総合討論