



the 70th congress

**ORCA 2023** meets **EFCO**

Organisation for Caries Research &  
European Federation for Conservative Dentistry,  
Egmond aan Zee, the Netherlands, 5-8 July



# Poster Sessions at a Glance

## Session 1 Epidemiology

Thursday, July 6 2023, Afternoon

Chair Persons: *Julian Schmoeckel, Lene Hove*

- 1 Global prevalence of early childhood caries. Systematic review and meta-analysis.**  
*Maklennan, Anastasia\* | Esteves-Oliveira, Marcella | Guglielmo, Campus*
- 2 Caries status in 12-year-old children, health care systems and socio-economic conditions across European Countries. A systematic review and meta-analysis**  
*Vukovic, Ana\* | Schmutz, Kian Alessandro | Borg-Bartolo, Roberta | Cocco, Fabio | Sava Rosianu, Ruxandra | Jordan, Rainer | Maclennan, Anastasia | Cortes-Martinicorenas, Javier F. | Rahiotis, Christos | Madléna, Melinda | Arghittu, Antonella | Castiglia, Paolo | Estevez-Oliveira, Marcella | Cagetti, Maria Grazia | Wolf, Thomas G. | Campus, Guglielmo*
- 3 Adjustment for school type related selection bias in 12-yr-olds in German National Oral Health Survey**  
*Wahl, Goetz | Splieth, Christian | Schmoeckel, Julian\**
- 4 Association between tooth brushing frequency and the increment of dental caries and tooth loss in adolescents**  
*Brusius, Carolina | Alves, Luana\* | Maltz, Marisa*
- 5 Early childhood predictors for dental caries in primary teeth: a machine learning approach**  
*Reyes, Lilian T. | Knorst, Jessica K. | Ortiz, Fernanda R. | Brondani, Bruna | Emmanuelli, B. | Guedes, Renata S. | Ardenghi, Thiago M. | Mendes, Fausto M.\**
- 6 Caries experience of 7-year-old children living in Uzbekistan: an epidemiological study**  
*Khudanov, B.O.\* | Gulyamov, D.T. | Tuygunov, N.N. | Turaev, K.I. | Abdurahimova, F.A. | OybutaevSh.U. | Schulte, A.G.*
- 7 First oral health survey among schoolchildren in Burundi**  
*Lamloum, Demetrio\* | La Corte, Pino | Nkeshimana, Serges | Tuyikeze, Olivier | Iradukunda, Pacifique | Nibigira, Eleonore | Viarchi, Arianna | Campus, Guglielmo*
- 8 defs/DMFS improvements in the Public Dental Health Service for Children/ Adolescents in Denmark during 1972-2022**  
*Christiansen, Jette\* | Christiansen, M. E. Christian | Ekstrand, Kim R*

- 9 Validation of the Turkish child oral health impact profile-short form (COHIP-SF 19) in children with molar-incisor hypomineralization**  
*Tugcu, Nihan | Bekiroglu, Nural | Kargul, Betul | Durmus, B\**
- 10 Progression of dental caries to severe stages in the primary dentition: a 7-year cohort study**  
*Brondani, Bruna\* | Knorst, Jessica | Ardenghi, Thiago | Mendes, Fausto*
- 11 Caries experience of second permanent molars among 11-15-year-old children in Greifswald: a cross-sectional analysis**  
*Mourad, Mhd Said (MS. Mourad)\* | Al Masri, Ahmad (A. Al Masri) | Pink, Christiane (C. Pink) | Vielhauer, Aninna (A. Vielhauer) | Abdin, Maria (M. Abdin) | Splieth, Christian H. (CH. Splieth)*
- 12 Caries Prevalence on young first and second permanent molars: a cross-sectional study in Greifswald**  
*Al Masri, Ahmad (A. Al Masri)\* | Mourad, Mhd Said (MS. Mourad) | Pink, Christiane (C. Pink) | Vielhauer, Aninna (A. Vielhauer) | Abdin, Maria (M. Abdin) | Splieth, Chrisitan (C. Splieth)*
- 13 Fissure sealing and caries experience in German Special Olympics Athletes between the years 2008-2018**  
*Schmidt, P.\* | Czenskowski, F.S.H. | Kaschke, I. | Schulte, A.*
- 14 Dental caries and tooth wear: observational study among an adult population in France**  
*Decup, Franck | Doméjean, Sophie\* | Lefèvre, Solène | Léger, Stéphanie | Grosogoeat, Brigitte*
- 15 Self-Reported Oral Health in a Population of Pregnant Portuguese Women.**  
*Azevedo, Maria João\* | Ferreira, Ana Filipa | Ramalho, Carla | Sampaio-Maia, Benedita | Zaura, Egija*
- 16 Factors associated with missing teeth in the general population of Białystok, Poland - preliminary report**  
*Bagińska, Joanna | Rodakowska, Ewa\* | Gabiec, Katarzyna | Łaguna, Wojciech | Kamińska, Inga | Stachurska, Zofia | Dubatówka, Marlena | Kondraciuk, Marcin | Kamiński, Karol*
- 17 Dental Caries and Periodontal problems among Refugees: A Scoping Review**  
*Banihashem Rad, Seyed Ahmad\* | Esteves Oliveira, Esteves Oliveira | Maklennan, Anastasia | Campus, Guglielmo*
- 18 Evaluation of dental caries and oral health behavior in middle-aged and elderly persons living in the community: A pilot study**  
*Rocuzzo, A | Borg-Bartolo R.\* | Schimmel, M. | Tennert, C. | Manton, DJ | Campus, G.*
- 19 Characteristic of factors associated with dental caries in Polish adult population- preliminary study**  
*Rodakowska Ewa\* | Baginska Joanna | Jamiolkowski Jacek | Kaminska Inga | Gabiec Katarzyna | Stachurska Zofia | Dubatowka Marlena | Kondraciuk Marcin | Kaminski Karol*
- 20 Caries experience among 65-year-olds in Oslo**  
*Hove, Lene Hystad\* | Diep, My Tien | Sjødal, Anne Thea Tveit | Young, Alix | Skudutyte-Rysstad, Rasa*
- 21 Exploring caries risk indicators among 65-year-olds in Oslo**  
*Young, Alix\* | Diep, My Tien | Sjødal, Anne Thea Tveit | Skudutyte-Rysstad, Rasa | Hove, Lene Hystad*

## Session 2 Clinical studies part 1 & Restorative

Thursday, July 6 2023, Afternoon

Chair Persons: Max Cenci, Áine Lennon

- 22 Dental practitioner's treatment choices for replacement of defective restorations**  
*Bottenberg, Peter\* | Jacquet, Wolfgang | Vanwing, Tom | Hamouchi, Mimoun | Vanden Abbeele, Astrid*
- 23 Attitude towards the deep treatment of caries. Survey on a clinical case**  
*S. Arroyo-Bote\* a-b | C. Bennasar Verges a | S. Herrero Tarilonte a | P. Riutord Sbert a-b | A. A. López-González a-b | D. Gonzalez Carrasco a-b*
- 24 Can marginal defects predict restorations' failure? A nested cohort study**  
*Chaves, E.T.\* | Romero, V.H.D. | Lima, G.S. | Mendes, F.M. | Huysmans, M.C.D.N.J.M. | Cenci, M.S.*
- 25 Prospective randomized split-mouth study investigating class-II-restorations with novel self-adhesive-bulk-fill and conventional bulk-fill-composites: 4-year results**  
*Scholz, Konstantin Johannes\* | Hiller, Karl-Anton | Ettenberger, Sarah | Cieplik, Fabian | Buchalla, Wolfgang | Federlin, Marianne*
- 26 Evaluation of MTA in direct pulp capping treatment of immature permanent teeth: retrospective study**  
*Kalyoncu, Isil Ozgul\* | Sadikoglu, Ayse Nur | Eren Giray, Figen | Kargul, Betul*
- 27 Shear bond strength of 4 dental adhesives placed following selective fluorescence caries removal in vitro**  
*Lennon, Áine M\* | Nina, Reich | Ebensberger, Helga | Ferstl, Gerlinde | Hiller, Karl-Anton | Buchalla, Wolfgang*
- 28 Effectiveness of polywave LED curing units for postcuring of 3D-printed crown and bridge resin**  
*Chang, J\* | Chung, SH | Choi, Y | Kim, S | Jiang, E | Lim, BS*
- 29 Systematic review and network meta-analysis of restorative therapy and adhesive strategies in root caries lesions**  
*Schmidt, Jana\* | Proesl, Susanne | Schulz-Kornas, Ellen | Haak, Rainer | Meyer-Lueckel, Hendrik | Campus, Guglielmo | Esteves-Oliveira, Marcella*
- 30 Success rate of Hall Technique for restoring carious primary molars - Systematic review and meta-analysis**  
*Tedesco, TK\* | Gallegos, CL | Silva, GS | Gimenez, T | Braga, MM | Araujo, MP | Jayaraman, J | Al-Yaseen, W | Innes, NP | Raggio, DP*
- 31 Micro-tensile bond strength between 3D printing resin and acrylic provisional resin and fracture toughness of combined with different thickness**  
*Jang, Jin-Young | Yu, Young Ho\* | Seo, Deog-Gyu | Park, Jeong-won*
- 32 WITHDRAWN**
- 33 The influence of food pigments on the color of composite materials**  
*Zubrzycka, Joanna\* | Jankowska, Natasza | Kaminska-Pikiewicz, Katarzyna | Chalas, Renata*

- 34 Curing Light Beam's inhomogeneity affects resin composite's microhardness: effect of thicknesses and shades**  
*Choi, M\* | Kim, DH | Park, Sung-ho*
- 35 The Effect of Er, Cr- YSGG Laser Caries Removal on The Bond Strength of a Universal Adhesive to Dentin**  
*Yazicioglu Pirpir, Yeliz Hayriye\* | Cetin Tuncer, Nurgul | Barutcugil, Cagatay*
- 36 Comparison of surface roughness of glass ionomer based restorative materials after brushing with different toothpastes**  
*Mangut, Berrak\* | Gocmen, Gulcin Bilgin | Atali, Pinar Yilmaz*
- 37 Assessment of surface properties of glass ionomers by SEM/EDX after brushing with different toothpastes**  
*Gocmen, Gulcin Bilgin\* | Mangut, Berrak | Tarcin, Bilge*
- 38 Investigation of the effect of different beverages on the hardness and roughness of restorative materials**  
*Çakmak, İremnur | Dülger, Kıvanç\* | Pürçek, Genççağ*

## Session 3 Diagnosis & Microbiology

Thursday, July 6 2023, Afternoon

Chair Persons: *Schlafer, Sebastian, Dono Kahharova*

- 39 Diagnosing exposed dentin by multiple raters allows new insights into diagnostic decision making of dentists**  
*Vach, Kirstin\* | Ganss, Carolina | Schlueter, Nadine | Vach, Werner*
- 40 Accuracy of photographs taken with a smartphone to detect active caries lesions in orthodontic patients**  
*Takahama, Ricardo | Marquezan, Patricia | Nagipe, Larissa | Swarowsky, Luciana | Dettmer, Bianca | Alves, Luana | Zenkner, Julio\**
- 41 Development of a vision transformer model for caries detection and localisation on dental photographs**  
*Kühnisch, Jan\* | Felsch, Marco | Anne Schlickerrieder | Engels, Paula | Schoenewolf, Jule | Hickel, Reinhard | Heinrich-Weltzien, Roswitha | Gruhn, Volker | Hesenius, Marc | Meyer, Ole*
- 42 Fluorescence-based detection of secondary caries lesions around amalgam restorations**  
*Hyung-Suk, Lee\* | You-Jin, Maeng | Eun-Song, Lee | Elbert, de Josselin de Jong | Baek-Il, Kim*
- 43 Comparison of visual and online digital images using merged International Caries Detection and Assessment System (ICDAS) codes in dental undergraduate students**  
*Mohamed Zohdi, Noorharliana\* | Abu Bakar, Norashikin*
- 44 Remote Caries Lesion Assessment Using CariesCare International Criteria: Perspectives for Teledentistry**  
*Abreu-Placeres, Ninoska\* | Yunes-Fragoso, Paula | Rodriguez, Alejandra | Garrido, Luis Eduardo | Ekstrand, Kim Rud | Beltrán, Edgar Orlando | Cortés, Andrea | Douglas, Gail VA | Newton, Jonathon Timothy | Pitts, Nigel B | Deery, Chris | Martignon, Stefania*
- 45 In-vitro performance of BlueCheck liquid for detection of initial lesions on occlusal surfaces**  
*Jablonski-Momeni, Anahita\* | Müller, Mara | Bottenberg, Peter*
- 46 Ultrasound Device, Antimicrobial Photodynamic Therapy and Bioactive Glasses for the Treatment of Dentin Caries Lesions**  
*Besegato, JF | Borges Gobbo de Melo, P | Bernardi, ACA | Bagnato, VS | de Souza Rastelli, AN\**
- 47 A combined microscopy-based analysis of biofilm pH and biofilm matrix carbohydrates**  
*Del Rey, Yumi C.\* | Schlafer, Sebastian*
- 48 Modulation of mutans streptococci cariogenic biofilm represent a promising targeted preventive therapy for dental caries.**  
*Lowder, Ashley | Ahn, Sean | Liu, Chuwen | Cho, Hunyong | Arnold, Roland R | Divaris, Kimon | Wu, Di | Ribeiro, Apoena Aguiar\**
- 49 The antimicrobial effect of two Vitamin D compounds on Streptococcus mutans and their impact on virulence gene expression**  
*Baysan, Aylin\* | Picolo, Marta | Stephen, Abish*

- 50 Association of *Helicobacter pylori* in oral cavity with dental caries**  
*Kadota, Tamami\* | Hamada, Masakazu | Okuda, Makoto | Ogaya, Yuko | Nomura, Ryota | Nakano, Kazuhiko*
- 51 Antibiofilm activity of a *Curcuma xanthorrhiza* oil nanoemulsion on dental microcosm biofilms**  
*Cho, Mu-Yeol | Lee, Eun-Song\* | Elbert, de Josselin de Jong | Kim, Baek-Il*
- 52 Multiple-enzyme treatment reduces biofilm formation in a highly acidogenic in vitro model**  
*Rikvold, Pernille Dukanovic\* | Møllebjerg, Andreas | Meyer, Rikke Louise | Schlafer, Sebastian*
- 53 *Rothia* species in caries-free and caries-affected toddlers**  
*Kahharova, Dono\* | Brandt, Bernd W | Buijs, Mark J | Peters, Mathilde | Jackson, Richard | Hara, Anderson | Keels, Martha Ann | Levy, Steven | Zaura, Egija | Fontana, Margherita*
- 54 Antimicrobial activity of probiotic strains against caries-associated oral bacterial species – an in vitro study**  
*Reichardt, E.\* | Alig, L. | Kulik, E. | Bornstein, M. M.*
- 55 Effect of a solution containing *Malva sylvestris* on microcosm biofilm formed on tooth**  
*Braga, A. S.\* | Almeida, G. P. | Silva, L. R. A. | Souza, B. M. | Magalhães, A. C.*
- 56 Synergistic effect of  $\alpha$ -(1→3) glucanase and DNase on the removal of *S. mutans* biofilm**  
*Queiroz, Mateus Xavier\* | Cortez, Anelyse Abreu | Pellegrini, Vanessa de Oliveira Arnoldi | Cury, Jaime Aparecido | Polikarpov, Igor | Ricomini-Filho, Antônio Pedro*
- 57 Biofilm formation on dentin influenced by toothpastes in situ**  
*Rupf, Stefan\* | Hannig, Matthias*
- 58 Evaluation of optimal pH and temperature of  $\alpha$ -(1→3) glucanase from *Prevotella melaninogenica***  
*Ricomini Filho, Antonio Pedro\* | Cortez, Anelyse Abreu | Queiroz, Mateus Xavier | Pellegrini, Vanessa de Oliveira Arnoldi | Polikarpov, Igor*

## Session 4 ORCA Nathan Cochrane Junior Scientist Award part 1

Friday, July 7 2023, Morning

Chair Persons: Sebastian Paris, Dongmei Deng

- 59 Caries-inhibiting activity of Silver Diamine Fluoride: Effects of Potassium Iodide**  
*El Sharkasi, Lamis\* | Bingle, Lynne | Rodd, Helen | Martin, Nicolas | Deery, Christopher*
- 60 Effect of Ca-Coacervates and its components on enamel lesions in de- and remineralizing environments in vitro**  
*Kharbot, Basel\* | Gruber, Dominik | Cölfen, Helmut | Paris, Sebastian*
- 61 Effect of Polyacrylic Acid on mineralization processes in artificial enamel lesions**  
*Vieweg, Paul\* | Kharbot, Basel | Dieke, Maj | Cölfen, Helmut | Staiger, Marc | Paris, Sebastian*
- 62 Assessment of Enamel Remineralisation After Treatment with Different Varnishes**  
*Parlakyildiz Gokce A.\* | Kelesoglu E. | Sagir K. | Kargul B.*
- 63 A new approach for edx fluorescence methodology and sem observations combined with light microscopic analysis**  
*Kukey Pelin\* | Turkmen Cafer | Cimilli Zuhre Hale | Zeren Muzaffer*
- 64 Impact of SDF + KI Topical Application on the Remineralisation of Deciduous teeth.**  
*Kaur, Mandeep\* | Anderson, Paul | Wong, Ferranti | Shahid, Saroash*
- 65 The performance of SoprolIFE for detection of root caries**  
*Chen, Haoran\* | Hill, Robert | Baysan, Aylin*
- 66 Validity and Reliability of OCT in the diagnosis of approximal carious lesions**  
*Strumpski, Michaela\* | Schneider, Hartmut | Rüger, Claudia | Schulz-Kornas, Ellen | Haak, Rainer*
- 67 Efficacy of herbal toothpastes containing Moringa Oleifera and hemp on dentin tubule occlusion**  
*Alkan, Elif\* | Tağtekin, Dilek | Korkmaz, Nesrin*
- 68 The efficacy of some commercial desensitizing toothpastes on dentin tubules occlusion and on dentin hardness**  
*Taraboanta, I\* | Bologna, E | Nica, I | Georgescu, A | Stoleriu, S | Andrian, S*
- 69 Does biofilm formation correlate with the numbers of bacterial cells initially attached to a surface?**  
*Sun C\* | Mazurel D | Ligtenberg A.J.M | Deng D*
- 70 Evaluation of the variability of supragingival biofilm clinical isolates**  
*Ghaouas, Soukaina\* | Chala, Sanaa*
- 71 WITHDRAWN**
- 72 Ratiometric monitoring of extracellular pH at the microscale in in situ-grown dental biofilms exposed to different saliva flow velocities and film thicknesses**  
*Kristensen, Mathilde Frost\* | Lund, Marie Braad | Schramm, Andreas | Lau, Ellen Frandsen | Schlafer, Sebastian*
- 73 Aerosol formation and potential infectivity of various dental treatments**  
*Melzow, Florentina\* | Rese, Tim | Kertzsch, Ulrich | Paris, Sebastian*

**74 Comparison of Two Techniques for Analyses of Cone Beam Computed Tomography Measurements of Tertiary Dentin**

*Baraka, Marwa\* | Fontana, Margherita | Cevidanes, Lucia | Benavides, Erika | Ruellas Antonio | Moustafa, Nourhan*

**75 WITHDRAWN**

**76 Assessment of microtensile bond strength of different caries removal techniques with ICDAS scores**

*Kanar, Özlem\* | Tağtekin, Dilek | Korkut, Bora | Yanıkoğlu, Funda*



## Session 5 Behavioural Sciences, Public Health & Education

Friday, July 7 2023, Morning

Chair Persons: *Ilona Persoon, Daniela Raggio*

- 77 Snapsnack: taking photographs for registration of food frequency intake, a pilot study**  
*Lagerweij, Maxim\* | Volgenant, Catherine*
- 78 An update of practitioners' thresholds for restorative intervention of carious lesions: Systematic Review**  
*Lundbeck, Heather\* | Innes, Max | Al-Yaseen, Waraf | Raggio, Daniela | Innes, Nicola*
- 79 Development of an Evidence-Based Mobile Health Application for, and with, Parents to Improve Children's Oral Health**  
*Raggio, Daniela P\* | Al-yaseen, Waraf | Araujo, Mariana P | Innes, Nicola*
- 80 Perception of care worker's oral-related activities of day and night care centers for elderly**  
*CHOI, YONGKEUM | YUN, JIHYE | CHA, EUNKYUNG | PARK, HYANGAH\**
- 81 Qualitative study of older patients' perceptions of root caries treatment with silver diamine fluoride**  
*Sommerfeldt, Wiebke | Gellert, Paul | Müller, Anne | Götze, Nirina | Göstemeyer, Gerd\**
- 82 Association of dental caries according to the dietary pattern of rice**  
*Ryu S.H.\* | Kim S.J. | Cho H.J. | Wang Z.L. | Lee H.J.*
- 83 Trend analysis between interdental cleaning devices and DMFT among the Korean population**  
*Wang Z.L.\* | Kim S.J. | Cho H.J. | Ryu S.H. | Song Y.H.*
- 84 Do air purifiers reduce viral aerosol spreading during simulated caries-related tooth-preserving operative care?**  
*Beltrán, Edgar\* | Castellanos, Jaime | Allison, James | Holliday, Richard | Jakubovics, Nicholas | Avila, Viviana | Martignon, Stefania*
- 85 Macedonian pregnant women's knowledge and attitudes about oral health**  
*Ambarkova Vesna\* | Ambarkov Jovan | Sulejmani Arjeta | Ivanovski Kiro | Karakamcev Andrej*
- 86 Dental caries factors in children aged 18 months in a core city of Japan**  
*Masatoshi Otsugu\* | Yusuke Mikasa | Taro Matsuoka | Katsura Matsunami | Motomi Nakamura | Atsushi Kondo | Makoto Kitatani | Shozo Wada | Tsutomu Sasabe | Takuji Hoshina | Takahiro Kato | Tetsuya Manabe | Takafumi Kato | Kazuhiko Nakano*
- 87 Consequences of untreated dental caries in a vulnerable population in the Netherlands**  
*Gitz, S. J.\* | Volgenant, C. M. C. | van der Heijden, G. J. M. G.*
- 88 Herbal mouthrinses for prevention of dental caries in children and adolescents – A Systematic Review**  
*SAIKIA, ANKITA\* | MS Muthu | Abirami S | Akila G | Krithika C | Richard K*
- 89 Latin American Consensus in Spanish of Cariology Teaching for Dental Schools**  
*Martignon, Stefania\* | Jacome-Lievano, Sofia | Malheiros, Zilson | Stewart, Bernal | Pozos-Guillén, Amaury de J. | Sampaio, Fabio | Giacaman, Rodrigo | Bullen, Miriam | Abreu-Placeres, Ninoska | Aranguiz, Vicente | Squassi, Aldo | Fernández, Constanza E. | Hugo, Fernando Neves | Gudiño, Sylvia | Pardo, Maria Isabel | González, Mónica | Zarta, Olga | Garcia, Mauricio |*

*Salazar, Lupe | Fontana, Margherita | Santamaría, Ruth M. | Melo, Paulo | Castillo, Jose Luis | Cortes, Andrea*

**90 Consensus for Teaching Dental Caries in Portuguese Language for Brazilian Dental Schools**

*Sampaio, Fabio\* | Bonecker, Marcelo | Paiva, Saul | Alex Arthur, Rodrigo | Cohen-Carneiro, Flavia | Rafael Ditterich, Rafael | Schneider Pires, Fabiana | Wang, Linda | Maria Cavalcante, Larissa | Gatti-Reis, Luisa | Borges Spínola, Vitoria | Scavuzzi, Ana Isabel | Malheiros, Zilson | Stewart, Bernal | Martignon, Stefania | Carcereri, Daniela | Fontanella, Vania*

**91 Minimal invasive treatment choice based on macroscopic and histological image diagnosis by dentists and students**

*Kuzmina, Irina\* | Said, Daria | Kuznetsov, Pavel | Pazdnikova, Nadezhda | Lapatina, Alla*

**92 Attitude and practice of faculty members toward “Minimal Invasive Dentistry”: A study in Iran and Turkey**

*Asgari Imaneh\* | Yilmazkasapoglu, Ece | Kargül, Betül*

**93 Silver diamine fluoride use among Italian dentists: a questionnaire survey**

*Cagetti, Maria Grazia\* | Salerno, Claudia | Camoni, Nicole | Cirio, Silvia | Campus, Guglielmo*

**94 Caries risk assessment by Dutch dental students**

*Persoon, Ilona F.\* | Volgenant, Catherine M.C. | Giacaman, Rodrigo A. | Doméjean, Sophie | de Soet, Hans (J.)J.*

**95 The inter-rater reliability of oral hygiene students and lecturers assessing preclinical cavity preparation exams.**

*Wijzenbeek, Tjitske\* | van der Veen, Monique*

**96 Where do we put the money for implementing active learning on caries detection?**

*Braga, Mariana Minatel\* | Yampa-Vargas, Jhandira Daibelis | Machado, Thais Gomes de Oliveira | Oliveira, Gabriele | Imparato, José Carlos | Raggio, Daniela Prócida | Mendes, Fausto Medeiros | IuSTC Group*

**97 Effectiveness of Dental Faculty Education Intervention in Caries Management**

*Nanda, Shubha\* | Ferreira Zandoná, Andréaa | Soi, Poonam | Jain, Shruti*

## Session 6 ORCA Nathan Cochrane Junior Scientist Award part 2

Friday, July 7 2023, Afternoon

Chair Persons: *Rodrigo Giacaman, Clarissa Bonifacio*

- 98 Impact of Silver Diammine Fluoride Use on the Need for Dental General Anaesthesia Treatment in Children**  
*Abdulahim R, C.H. Splieth, M.S. Mourad, A. Vielhauer, R.M. Santamaría*
- 99 Differential Learning vs. Conventional Method in Improving Tooth Brushing in Children: A Randomized Controlled Trial**  
*Leghrouz, Loay\* | Khole, Manasi R. | Splieth, Christian H. | Schmoeckel, Julian*
- 100 Oral health and dental anxiety in recall patients in a specialized pedodontic university clinic**  
*Karim, Ramiar\* | Schmoeckel, Julian | Splieth, Christian*
- 101 The effect of different sweeteners on oral microbiome: a clinical exploratory pilot study**  
*Zakis, Davis R.\* | Van der Waal, Suzette V. | Brandt, Bernd W. | Keijser, Bart J. F. | Crielaard, Wim | Zaura, Egija | Volgenant, Catherine M. C.*
- 102 Variations in Salivary Composition upon a Single Protein-Rich Food Ingestion; A Pilot Study.**  
*Echeverría, C\* | García-Manríquez, N | Villalobos-Contreras, J | Echeverría, D | Lozano, C | Fernández, CE | Gambetta-Tessini, K | Valdés, S | Mira, A | Giacaman, R*
- 103 DMFT related dental plaque scoring by using different imaging systems**  
*Meseli, Simge\* | Korkut, Bora | Tagtekin, Dilek | Yanikoglu, Funda*
- 104 Sixty-month clinical evaluation of a universal adhesive's different adhesive strategies in Class II bulk-fill restorations**  
*Uslu Tekce, Aybuke\* | Yazici, A. Ruya | Kutuk, Zeynep Bilge*
- 105 The effect of considering marginal defects when assessing posterior restorations – the CaCIA Cluster Randomized Controlled Trial**  
*Digmayer Romero, Vitor Henrique\* | Trota Chaves, Eduardo | Signori, Cácia | Medeiros Mendes, Fausto | Huysmans, Marie-Charlotte | Cenci, Max*
- 106 Influence of gender and combined hormonal oral-contraceptive on parotid saliva flow-rate, pH, and electrolytes concentration**  
*Rovera, Angela\* | Anderson, Paul*
- 107 Gene-Environment Interactions and Caries Risk Assessment: MMP3, VDR, IL-6 and TNF-  $\alpha$  Gene Polymorphisms**  
*Özmen, Seda\* | Yılmaz Atalı, Pınar | Ağralı, Ömer Birkan | Tacal Aslan, Beste | Aksu, Mehmet Burak | Polat, Tolga | Yılmaz, Özlem Özge | Ulucan, Korkut*
- 108 Caries indicators in twin children: comparison between monozygotics and dizygotics**  
*Freitas, Julia G.\* | Pontes, Laura R.A. | Brondani, Bruna | Otta, E. | Raggio, Daniela P. | Braga, Mariana M. | Mendes, Fausto M.*
- 109 Plaque indices and planimetrically measured plaque coverage - a true relationship?**  
*Jung, Katja\* | Armbrecht, Franziska | Giese-Kraft, Katja | Ressel, Elisa | Ganss, Carolina*
- 110 Dental healthcare costs of children living in Amsterdam and associated socio-demographic characteristics**

*van Ligten, T.S. (Tessa)\* | Schmitz, D. (Daan) | Volgenant, C.M.C (Catherine) | Donken, R. (Robine) | van der Heijden, G.M.J.G (Geert) | Duijster, D. (Denise)*

**111 Prevalence of root caries and psycho-social perception in the Indian geriatric population.**

*Govind, Shashirekha\* | Satyarup, Dharmashree | Bastia, Roja | Jena, Amit*

**112 The use of fluoride toothpaste mitigates oral health inequalities: The Korean National Children's Oral Health Survey**

*Ji-Na Lim\* | Tae-Hee Go | Soo-Hwang Seok | Soo-Yeon Shin | Ja-Won Cho | Jae-Young Lee*

**113 Parental and caregivers' perspectives on addressing persistent oral health inequality among young children**

*Balasooriyan, Awani\* | Dedding, Christine | Bonifácio, Clarissa Calil | van der Veen, Monique H.*

**114 Compliance to a Dutch national caries prevention advice (CPA) in 1-year olds living in Amsterdam**

*Kaan, Amke Marije\* | Ujcic-Voortman, Joanne | Haring, Luuk | Zaura, Egija*

**115 Factors in early childhood affecting dental caries incidence by age 42 months in Japan**

*Mikasa, Yusuke\* | Otsugu, Masatoshi | Matsuoka, Taro | Matsunami, Katsura | Nakamura, Motomi | Kondo, Atsushi | Kitatani, Makoto | Wada, Shozo | Sasabe, Tsutomu | Hoshina, Takuji | Kato, Takahiro | Manabe, Tesuya | Kato, Takafumi | Nakano, Kazuhiko*

**116 Validity and reliability of a questionnaire designed to evaluate: knowledge and perception of sugar substitute and oral health.**

*Nikooseresht, Parisa\* | Anderson, Paul | Baysan, Aylin*

**117 Development of a Clinical Practice Guideline for dental care for pregnant women in primary healthcare**

*Mazzetti, Thais\* | Daneris, Andrea | Vetromilla, Bruna | D'Avila, Otávio | Dickie de Casttilhos, Eduardo | Cenci, Maximiliano*

## Session 7 De- and Remineralization & Erosion

Friday, July 7 2023, Afternoon

Chair Persons: *Thiago Saads Carvalho, Nadine Schlueter*

- 118 Association of remineralizing agents with in-office dental bleaching on enamel demineralization**  
*Torres, C.R.G.\* | Moecke, S.E. | Pinto, E.P.G. | Andrade, A.C.M. | Borges, A.B.*
- 119 The effect of various remineralization agents on artificial enamel lesions according to two different quantitative fluorescence systems**  
*Ozsalih Bilsel, Seda | Kargul, Betul | Dogan, Salih | Bekiroglu, Gulnaz Nural | Yilmaz, Muesser Ahu\**
- 120 Optical coherence tomography versus transverse microradiography to determine lesion depth of demineralized enamel**  
*Schulz-Kornas, Ellen\* | Meißner, Tobias | Braga, Aline S. | Haak, Rainer | de Melo, F. P. S. R. | Saldanha, L. L. | Dokkedal, A. L. | Magalhães, A. C. | Esteves-Oliveira, M.*
- 121 Effect of Silver Diamine Fluoride (SDF) on secondary caries In Vitro**  
*Askar, Haitham\* | Tschöke, Tobias | Paris, Sebastian | Göstemeyer, Gerd*
- 122 Remineralization by dental gels containing S-PRG Fillers (S-PRG)**  
*Daisuke, Inaba\* | Toshiyuki, Nakatsuka | Elbert, de Josselin de Jong | Jiro, Hitomi*
- 123 Efficacy of Ca and Na salts of poly-gamma-glutamic acid on demineralisation inhibition of hydroxyapatite discs**  
*Narayanamurthy, Deeksha | Hill, Robert | Anderson, Paul\**
- 124 Gastric Acid Erosion Protection from a Toothpaste containing various sources of Calcium, Phosphate, and Fluoride In Vitro**  
*Gilligan, SL\* | Mihoková, S | Phillipotts, CJ | Joiner, A | Owens, GJ | Barnett, S*
- 125 Effect of an experimental TiF<sub>4</sub>/NaF solution in preventing tooth erosion - in vivo study**  
*Vertuan, Mariele | Silva, Julia França | Souza, Beatriz Martines | Magalhães, Ana Carolina\**
- 126 Experimental varnishes based on the association of polymethacrylate copolymers with fluoride against erosive tooth wear**  
*Borges, Alessandra Buhler\* | Santos, Tamires Maria de Andrade | Lotto, Giovanna | Aoki, Idalina Vieira | Scaramucci, Tais | Torres, Carlos Rocha Gomes*
- 127 In vitro investigation of the anti-erosive efficacy and durability of a stannous/chitosan/fluoride toothpaste**  
*Morawietz, Maria\* | Schiffner, Thomas | Kiesow, Andreas*
- 128 Influence of the salivary enamel pellicle on the wettability of different polymer solutions**  
*Oba Sakae, Leticia\* | Niemeyer, Samira Helena | Buhler Borges, Alessandra | Scaramucci, Tais | Saads Carvalho, Thiago*
- 129 Effect of the interaction between polymers and the salivary pellicle on enamel demineralization**  
*Scaramucci, Tais\* | Sakae, Letícia | Niemeyer, Samira Helena | Borges, Alessandra | Carvalho, Thiago*

**130 Effect of combining fluoride with polyphenol-rich plant extracts on the proteomic composition of dentine pellicles**

*Niemeyer, Samira Helena | Carvalho, Thiago Saads | Wittwer, Lucas | Buzalaf, Marília Afonso Rabelo | Baumann, Tommy\**

**131 Proteomic analysis of salivary dentine pellicle modified with plant extracts**

*Niemeyer, Samira\* | Carvalho, Thiago | Wittwer, Lucas | Furrer, Samuel | Buzalaf, Marilia | Baumann, Tommy*

**132 Protein composition in acquired pellicle of adolescents with erosive tooth wear or extensive caries**

*Avila, Viviana\* | Beltran, Edgar O | Velandia, Myriam | Castellanos, Jaime | Gordon, Proctor | Martignon, Stefania*

**133 Effect of salivary pellicle modification with grape seed extract on enamel erosion and abrasion**

*Mailart, Mariane Cintra | Nikolla, Ilirida | Reinales, Ana Sofia Arana | Niemeyer, Samira Helena | Baumann, Tommy | Carvalho, Thiago Saads\**

**134 Cross-sectional clinical study on salivary enzyme activity and erosive tooth wear of different aetiology**

*Schlueter, Nadine | Luka, Benedikt\* | Hannig, Matthias | Vach, Kirstin | Basche, Sabine | Mueller, Maxi | Mulic, Aida | Hannig, Christian*

**135 Tobacco smoking does not affect the erosion-protective capacity of the salivary pellicle**

*Kanzow, Philipp\* | Schlarmann, Frederike | Barke, Sarah | Rohland, Bianca | Wiegand, Annette*

**136 Dental erosion and its impact on quality of life in the patient with gastroesophageal reflux**

*Tran Thu Thuy\* | Nguyen Thi Diem | Lu Minh Loc | Phung Minh Thinh*

**137 Food Habits and Erosive Tooth Wear in a Sample of Vegans and Omnivores**

*Fernández, Constanza E.\* | Pino, Matias J. | Arancibia, Marcela | Valentina, Valenzuela. | Maturana-Valenzuela, Catalina. | Silva, Consuelo.*

## Session 8 Fluoride, Hard Tissues & Pulp-Dentinal Reactions

Saturday, July 8 2023, Morning

Chair Persons: *Livia Tenuta, Steven Levy*

**138 Fluoride clearance from the oral environment after rinsing with an eluted solution of S-PRG fillers**

*Kato, Kazuo\* | Shimazaki, Yoshihiro*

**139 Caries prevention effect of toothpaste using fluoride deposition technology**

*Akabane, C\* | Fujiki, M | Kimura, M | Hashimoto, R | Ono, M | Imazaki, M | Yamamoto, Y*

**140 Longitudinal Fluoride Intake Not Associated with Age 23 Tibial Bone Strength from Finite Element Analyses**

*Levy, Steven\* | Pendleton, Chandler | Guha, Indranil | Saha, Punam | Warren, John | Eichenberger-Gilmore*

**141 Total fluoride intake across pregnancy amongst pregnant women in North-East England**

*John, Sherley\* | Barker, Debra | Combet, Emilie | Zohoori, Vida*

**142 Engineering and fluoride release of fluoride salts nanoparticles**

*Chang, Albert | Lahann, Joerg | Tenuta, Livia M. A.\**

**143 Prevalence of Receipt of Fluoride Varnish in Dental and Medical Settings in School-aged U.S. Children**

*Tandon, Mary | Levy, Steven | Eckert, George | Warren, John | Daly, Jeanette M. | Keels, Martha Ann | Hara, Anderson | Fontana, Margherita | Levy, Barcey T.\**

**144 Effects of LED curing light on silver diamine fluoride penetration into dentin caries lesions.**

*Crystal, Yasmi O\* | Rabieh, Sasan | Janal, Malvin N | Cerezal, Gretchen | Hu Bin | Bromage, Timothy G*

**145 Abrasion of dental hard tissues by baking soda: effect of dilution and brushing force**

*Turssi, Cecilia\* | Garcia, Gabriela | Barros, Leonardo | Scaramucci, Taís | Savio, Bezerra*

**146 Bonding of restorative Materials to Caries-affected Dentin Disinfected with Photodynamic Therapy and Chemical Disinfectants**

*Atalay, Cansu\**

**147 Bond strength of bioactive materials to laser-prepared dentin**

*Yuksel, Ahmet Burak\* | Atalay, Cansu | Yazici, Ruya*

**148 The effect of treatment regimens on mineralisation of MIH enamel in vitro**

*Sharqawi, Abdulwaddood | Malinowski, Marina\* | Trafford, Simon Mark | Drummond, Bernadette | Balmer, Richard*

**149 Partial pulpotomy in young permanent molars: a systematic review and meta-analysis**

*Camoni, Nicole | Cirio, Silvia\* | Cagetti, Maria Grazia | Esteves-Oliveira, Marcella | Campus, Guglielmo*

**150 Combined vital pulp therapy and direct restoration saved a hopeless tooth: 5 years case report.**

*Holscher, Christian\**

## Session 9 Clinical studies part 2

Saturday, July 8 2023, Morning

Chair Persons: Ruth Santamaria, Richard Wierichs

- 151 Preliminary Assessment of Caries Lesion Trajectories Over Time in Children from a US Population**  
*Fontana, Margherita\* | Eckert, GJ | Benavides, E | Clements, D | Hara, AT | Katz, B | Keels, MA | Levy, BT | Levy, SM | Caries Risk Study Group*
- 152 Comparison of oral status and oral health behavior using CRASP in Japanese dental clinics**  
*Yoichi, Ishizuka\* | Seiichi, Sugiyama*
- 153 Longitudinal status of dental caries and risk factors for cavity in the occlusal surface of first permanent molars in a school oral health program**  
*Guerra, Bianca Mattos dos Santos\* | Reis, Patrícia Papoula Gorni | Jorge, Roberta Costa | Hesse, Daniela | Bonifácio, Clarissa Calil | Soviero, Vera Mendes*
- 154 Primary Incisor Crowding: Association with Children's Caries Risk**  
*Keels, Martha Ann\* | Fontana, Margherita | Eckert, George | Benavides, Erika | Clements, Dennis | Hara, Anderson | Katz, Barry | Levy, Steven | Levy, Bracey | Caries Risk Study Group*
- 155 Variations in tooth contact and proximal caries in children: a 3-year prospective cohort study**  
*Murugan, Muthu\* | Kirthiga Muthusamy | Kayalvizhi, Gurusamy | Mathur, Vijay Prakash | Jayakumar, Naveenkumar*
- 156 Clinical detection and monitoring of occlusal caries in young adults. Thirty-month follow-up.**  
*Tsakanikou Angeliki\* | Rachiotis Christos | Michou Stavroula*
- 157 Brushing and chewing movement – are synergisms conceivable?**  
*Ressel, Elisa-Maria\* | Giese-Kraft, Katja | Jung, Katja | Ganss, Carolina*
- 158 The effect of an enzyme-containing lozenge on dental biofilm accumulation: A clinical pilot study**  
*Schlafer, Sebastian\* | Johnsen, Karina Kambourakis | Jørgensen, Mette Rose | Kjærboølling, Inge | Schramm, Andreas | Meyer, Rikke Louise*
- 159 Aesthetic caries infiltration – Long-term masking efficacy after 6 years**  
*Wierichs, Richard Johannes\* | Langer, Franziska | Kobbe, Céline | Abou-Ayash, Bedram | Esteves-Oliveira, Marcella | Wolf, Michael | Knaup, Isabel | Meyer-Lueckel, Hendrik*
- 160 Clinical Performance of Resin-Modified Glass Ionomer Cement Applied to Partially Erupted Permanent Molars: Preliminary Report**  
*Ballikaya, Elif | Unverdi Erbas, Gizem | Gungor, Cem Hamdi*
- 161 Protocol for Reducing the Need of Dental General Anesthesia in Young Children: The Greifswald Concept**  
*Santamaría, Ruth M.\* | Abdulrahim, Ruba | Mourad M. Said | Vielhauer, Annina | Schmoeckel, Julian | Masri, Ahmad Al | Splieth, Christian H.*
- 162 Comparative Evaluation of Plaque Removal Efficacy of Electric Toothbrushes Between Children with Attention Deficit and Hyperactivity Disorder And Healthy Children**  
*Ucar, Zeynep | AKYILDIZ, Melis\* | Aylin Kaya*



**163 Cost-benefit analysis of non-invasive early childhood caries management interventions among Latvian preschool children**

*Maldupa, Ilze\* | Uribe, Sergio E | Viduskalne, Ilona | Senakola, Egita | Brinkmane, Anda | Mariño, Rodrigo*

**164 Covid-19 and caries treatment modalities in children, a retrospective clinical study**

*Salerno, Claudia\* | Almonte, Elena | Aiello, Patrizia | Bellini, Dorothea | Campus, Guglielmo | Cagetti, Maria Grazia*

**165 Investigation of Antifungal Effects of Different Remineralization Agents on Candida Amount in Children**

*F. Eren Giray\* | C. Güven | N. Topçuoğlu | B. Kargül*

**166 Development and test of bee's propolis toothpaste (patented) to control dentinal hypersensitivity**

*Veronneau, Jacques\**

**167 A prospective cohort study of post-radiotherapy dental caries in head and neck cancer patients**

*Moore, Ciaran\* | Markey, Neill | Donnelly, Micheal | O'Neill, Ciaran | McKenna, Gerry*