



## **RAPPORT D'ACTIVITÉS DANS LE CADRE DU RENOUELEMENT DU MANDAT DE PROFESSEURE ASSOCIÉE DE MME GIANNOPOULOU CATHERINE**

- **Période du mandat :** du 01.05.2020 au 31.07.2022 à 70% ;  
du 01.08.2022 at 30.09.2024 à 100%

- **Activités d'enseignement :**

### **Pré gradué : Bachelor médecine dentaire (BA3) :**

- Module 3.1B et 3.2 : APP/unité de prévention et thérapie étiologique et unité de microbiologie et écosystème buccal/Parodontologie - tutorial et bilans sessions interactives.
- 3BA : examen oral parodontologie – examinatrice

### **Master médecine dentaire (MA1 et MA2) :**

- Cours MDP, cours parodontologie
- Supervision de travaux de fin d'études (n= 6 depuis 2020)
- MA1 et MA2 - examen oral parodontologie ; MA2 - examen oral médecine dentaire préventive => examinatrice

### **Responsabilités :**

#### **Pré et post grade :** Responsable du programme de l'enseignement de la Division

- Membre du bureau de la Commission de l'Enseignement (BUCE)
- Directrice du Comité Bachelor de la CUMD
- Responsable d'une activité Master 2 AMC Cameroun

#### **Post grade et continu :** Directrice du comité MAS en médecine dentaire ;

- Cours dans le cadre des formations post grades
- Direction de thèse de doctorat, MDPHd, PhD (4 thèses de Doctorat)
- Séminaires et cours de formation continue
- Formation pédagogique des enseignants (Parcours 6)

### **Pedagogical training (UDREM workshops for CUMD lecturers)**

- 30.11.2021: Faciliter l'apprentissage des étudiant-es dans l'APP
- 09.12.2021: Introduction à l'APP
- 14.12.2021: Comportements non professionnels chez les étudiant-es, qu'en faire ? (1)
- 25.01.2022: Donner un feedback utile et constructif dans l'APP
- 01.03.2022: Comportements non professionnels chez les étudiant-es, qu'en faire ? (2)
- 10.03.2022: Comment donner un cours : outils et stratégies pour favoriser l'apprentissage
- 24.05.2022: Quand le feedback devient difficile à réaliser

▪ **Activités de recherche :**

Pharmacokinetic considerations and dosing strategies of amoxicillin and metronidazole or azithromycin as adjunct to non-surgical periodontal therapy. A randomized clinical trial.

Periodontal treatment aims to restore oral and gingival health. In some patients, often young, periodontal infection can be severe due to factors such as specific bacteria, genetics, and systemic conditions. For these categories of patients, the complexity of treatment often increases. A systemic approach is proposed to address the problem, comprising the use of systemic antibiotics combined with the mechanical periodontal treatment. The clinical efficacy of the combination of amoxicillin (AMO) and metronidazole (MET) or azithromycin (AZI) as adjunct to periodontal treatment has been proven for this special patients' categories (generalized periodontitis Stage III in young adults). However, multiple regimens in terms of dosage and duration are used, mostly empirically, based on clinical and microbiological results related to the resolution of periodontitis. In the medical field, pharmacokinetic/pharmacodynamic (PK/PD) analysis allows to optimize dosing and duration of an antibiotic regimen to optimize efficacy and avoid extensive or inadequate use.

We are currently conducting a randomized clinical trial including 102 subjects with generalized severe periodontitis (stage III and IV, grade C). The primary objective is to study the concentration and duration effect of three antibiotic regimens in oral fluids. Based on their pharmacokinetic and pharmacodynamic characteristics we study their transfer from plasma to gingival crevicular fluid (GCF) and saliva at different time points.

The secondary objectives are to evaluate a) the microbiological effect of the three regimens on 6 selected micro-organisms b) the frequencies of adverse events c) the patients' compliance to the treatment d) the clinical resolution of periodontitis, defined as absence of sites with PD  $\geq$  5 mm and concomitant bleeding and/or suppuration on probing, and absence of progression of bone loss at the end of the observation period.

Subjects are selected from the pool of patients being treated in the Division of Periodontology of the University of Geneva. Patients between 18-45 years old in need of periodontal treatment associated with adjunctive antibiotic therapy are included. As data has shown that metronidazole (MET)+amoxicilline (AMO) for 7 days is the most relevant approach in terms of significance and magnitude of positive effects, this regimen is considered as control. Thus, subjects are randomly divided in 3 groups: Amoxicillin 500mg and Metronidazole 500mg three times per day for 7 days (control group); Amoxicillin 500mg and Metronidazole 500mg three times per day for 3 days (Group Test 1); Azithromycin 500mg once per day for 3 days (Group Test 2). The concentrations of AMO, MET and AZI will be assessed by high performance liquid chromatography in samples of GCF, saliva and blood at Day 0, Day 2, Day 4 and at Day 8 after the start of antibiotic administration. The analyses will be conducted in the Service of Clinical Pharmacology of the CHUV.

No data are available on the concentrations and the duration effect of those antibiotics in the gingival fluid, saliva, or blood of periodontitis patients. This development may contribute to optimize the regimen used and at the same time to avoid inappropriate antibiotics consumption, that leads to drug resistance and consequently, poorer clinical outcomes.

The project is supported by the SNF grant No 32003B\_212578 and a grant from the Swiss Society of Periodontology (SSP).

#### Oral and gut microbiota changes during long-term fasting in humans

Long-term fasting, characterized by the voluntary abstinence or strong reduction in caloric intake, lasting from 4 days up to several weeks, has gathered attention for its potential health benefits including its anti-inflammatory effect. Extensive research has demonstrated the systemic effects of long-term fasting on various conditions such as metabolic disorders, cardiovascular diseases, hypertension, oxidative stress, and gut microbiome. However, the impact of prolonged fasting on oral health and the oral microbiome remains relatively unexplored. Understanding the interplay between prolonged fasting, the oral microbiome, and periodontal health is essential for unravelling potential therapeutic interventions. To investigate this hypothesis, we conducted a comprehensive study aiming to assess the impact of prolonged fasting on the oral microbiome composition, oral inflammation markers, and halitosis measurements in a cohort of 30 healthy subjects undergoing a 10±3-days fasting. The participants fasted according to the guidelines of the fasting therapy under continuous medical supervision (Wilhelmi de Toledo, Françoise, Andreas Buchinger, Hilmar Burggrabe, Gunter Hölz, Christian Kuhn, Eva Lischka, Norbert Lischka, et al. 2013. "Fasting Therapy - an Expert Panel Update of the 2002 Consensus Guidelines." *Forschende Komplementärmedizin* ).

The clinical part of the study has already been completed. This included a full-mouth periodontal examination, measurement of halitosis, saliva sampling, stool sampling, serum and gingival crevicular fluid sampling. Part of the laboratory analyses has been conducted.

#### Combination of Hyaluronic Acid with Platelet-Rich Plasma for Treatment of Peri-implantitis associated Hard and Soft Tissue Defects

Peri-implantitis is a destructive inflammatory disease affecting osseointegrated dental implants and causing progressive loss of supporting bone with clinical signs of inflammation. It affects 13% of implants and 18.5% of patients with an alarmingly rising incidence from 0.4% to 43.9% within 3 to 5 years. Untreated, peri-implantitis results in progressive hard and soft tissue destruction, esthetic complications and could eventually lead to implant loss. Treatment of peri-implantitis ideally aims for resolution of the clinical signs of inflammation, regeneration of the lost peri-implant tissues and re-osseointegration.

Current research has been gradually shifting towards regenerative medicine, which has eventually led to focusing on platelets and their derivative products. Due to their role in hemostasis and wound healing, platelet concentrates have become increasingly popular in the medical field. These autologous products possess antibacterial properties and contain high concentrations of blood-derived growth factors essential for healing and tissue regeneration. Platelet-rich plasma (PRP) can be easily derived from the patient's peripheral blood using centrifugation techniques. It is an inexpensive and simple procedure, that results in a 6-8-fold increase in growth factors' concentrations. Yet, despite PRP's significantly positive effects on intra-oral soft tissue regeneration, its effect on hard tissue formation is still debatable. Hyaluronate or Hyaluronic acid (HA) is another naturally occurring fluid that has been gaining attention in regenerative medicine. It is a non-sulfated glycosaminoglycan found in neural, epithelial, and connective tissues. HA is widely distributed within the extracellular matrix as well as in various biological fluids, such as the saliva, crevicular and synovial fluids. It is known for its anti-inflammatory and viscosupplementation effects, which render it quite popular for treatment of osteoarthritis and chronic tendinopathy.

This project aims to evaluate the efficacy of the combination of HA and PRP for treatment of peri-implantitis associated hard and soft tissue defects. It involves a three-stage protocol including an in vitro experiment followed by two randomized controlled clinical trials. The in vitro study aims to evaluate the biological effects of the combination of HA+PRP on human fibroblasts, osteoblasts, and periodontal ligament cells. Different HA+PRP compositions are currently tested

to evaluate the optimal HA+PRP formulation and its effects on the release of selected growth factors and pro-inflammatory cytokines. The first prospective randomized controlled single-blinded clinical trial (RCT) aims to evaluate the selected HA+PRP formulation for treatment of peri-implantitis inflammatory lesions, with focus on disease resolution and guided bone regeneration. The second prospective three-arm single-blinded RCT aims to evaluate the effects of HA+PRP for treatment of gingival and peri-implant soft tissue defects. The effects of HA+PRP on wound healing of the palatal donor site will also be examined.

▪ **Fonds obtenus.**

**Swiss National Science Research Foundation**

Pharmacokinetic considerations and dosing strategies of amoxicillin and metronidazole or azithromycin as adjunct to non-surgical periodontal therapy. A randomized clinical trial (32003B-212578/1)

Principal Investigator: **C. Giannopoulou**, Co-Investigator: Dr E. Choong, Project Partners: Pr. L. Decosterd, Dr A. Zekeridou

Period: 2022-2025 Amount: **CHF 255'112**

**Fondation pour la recherche sur le diabète**

Evaluation de l'impact du dépistage de la parodontite par intelligence artificielle chez les patients diabétiques

Principal Investigator: Karim Gariani (HUG), Project Partner: **C. Giannopoulou**

Period: 2022-2025 Amount **CHF 53'934**

**Association for Dental Infection Control (ADIC)**

Effect of air-polishing with erythritol powder on the prevalence of white spot lesions and gingivitis during orthodontic treatment with fixed appliances: a randomized clinical trial

Principal Investigator: G. Antonarakis, Co-Investigator: A. Zekeridou

Project Partner: **C. Giannopoulou**

Period: 2023-2026 Amount **CHF 33'500**

▪ **Publications pendant la période du mandat :**

1. Loumé A, Grundler F, Wilhelmi de Toledo F, Giannopoulou C, Mesnage R. Impact of long-term fasting on halitosis, inflammatory markers, and saliva microbiota composition in healthy subjects. International Journal of Oral Science, **2023**, submitted for publication.
2. Antonarakis G, Zekeridou A, Kiliaridis S, Giannopoulou C. Periodontal considerations during orthodontic intrusion and extrusion in healthy and reduced periodontium. Periodontology 2000. **2023**, submitted for publication.
3. Chatzaki N, Stavropoulos A, Cancela J, Kiliardis S, Giannopoulou C. Ligature-induced periodontitis in rats with three wire types. An exploratory study. Clin Exp Dent Res. **2023**, submitted for publication.
4. Loumé A, Gardelis P, Zekeridou A, Giannopoulou C. A survey on systemic antibiotic prescription among Swiss dentists. Swiss Dental Journal **2023**, Jul 13;133. Epub ahead of print. PMID: 37439192.

5. Chatzaki N, Zekeridou A, Paroz, E, Gastaldi G, Giannopoulou C. Knowledge, and practice attitudes regarding the relationship between diabetes and periodontitis: A survey among Swiss endocrinologists and general physicians. *BMC Prim Care*. **2023** Nov 13;24(1):238. doi: 10.1186/s12875-023-02184-5. PMID: 37957609; PMCID: PMC10644439.
6. Gardelis P, Ebersberger R, Zekeridou A, Giannopoulou C. Clinical Attitudes, Behaviors and Perceived Stress Towards the COVID-19 Pandemic: A Questionnaire Survey among Swiss Dentists. *Oral Health Prev Dent*. **2022** Oct 19;20(1):379-384. doi: 10.3290/j.ohpd.b3500619. PMID: 36259441.
7. Gardelis P, Zekeridou A, Suh N, Le Terrier C, Stavropoulos A, Giannopoulou C. A pilot clinical and radiographic study on the association between periodontitis and serious COVID-19 infection. *Clin Exp Dent Res*. **2022** Oct;8(5):1021-1027. doi: 10.1002/cre2.610. Epub 2022 Aug 6. PMID: 35932180; PMCID: PMC9562574.
8. Zekeridou A, Gilbert B, Finckh A, Giannopoulou C. Periodontitis in First Degree-Relatives of Individuals With Rheumatoid Arthritis: A Short Narrative Review. *Front Oral Health*. **2022** May 6;3:895753. doi: 10.3389/froh.2022.895753. PMID: 35601818; PMCID: PMC9120603.
9. Lazaridi I, Zekeridou A, Schaub L, Prudente D, Razban M, Giannopoulou C. A Survey on Oral Health Knowledge, Attitudes and Practices of Pregnant Women Attending Four General Health Hospitals in Switzerland. *Oral Health Prev Dent*. **2022** Jan 20;20(1):33-40. doi: 10.3290/j.ohpd.b2573007. PMID: 35049251.
10. Sereti M, Zekeridou A, Cancela J, Mombelli A, Giannopoulou C. Microbiological testing of clinical samples before and after periodontal treatment. A comparative methodological study between real-time PCR and real-time-PCR associated to propidium monoazide. *Clin Exp Dent Res*. **2021** Dec;7(6):1069-1079. doi: 10.1002/cre2.464. PMID: 34216116; PMCID: PMC8638278.
11. Fleury V, Zekeridou A, Lazarevic V, Gaïa N, Giannopoulou C, Genton L, Cancela J, Girard M, Goldstein R, Bally JF, Mombelli A, Schrenzel J, Burkhard PR. Oral Dysbiosis and Inflammation in Parkinson's Disease. *J Parkinsons Dis*. **2021**;11(2):619-631. doi: 10.3233/JPD-202459. PMID: 33646178; PMCID: PMC8150470.
12. Sereti M, Roy M, Zekeridou A, Gastaldi G, Giannopoulou C. Gingival crevicular fluid biomarkers in type 1 diabetes mellitus: A case-control study. *Clin Exp Dent Res*. **2021** Apr;7(2):170-178. doi: 10.1002/cre2.351. PMID: 33369174; PMCID: PMC8019764.
13. Antonarakis GS, Ameer S, Giannopoulou C, Kiliaridis S. Perception of pain in Class II malocclusion children treated with cervical headgear: a randomized controlled trial. *Eur J Orthod*. **2021** Apr 3;43(2):222-228. doi: 10.1093/ejo/cjaa048. PMID: 32812021.
14. Razban M, Giannopoulou C. Knowledge and Practices of Oral Health Care During Pregnancy: A Survey Among Swiss Dentists. *Oral Health Prev Dent*. **2020**;18(1):447-454. doi: 10.3290/j.ohpd.a44682. PMID: 32515415.
15. Megally A, Zekeridou A, Cancela J, Giannopoulou C, Mombelli A. Short ultrasonic debridement with adjunctive low-concentrated hypochlorite/amino acid gel during periodontal maintenance: randomized clinical trial of 12 months. *Clin Oral Investig*. **2020** Jan;24(1):201-209. doi: 10.1007/s00784-019-02949-2. PMID: 31079243.

## Book chapters

1. Alkisti Zekeridou and Catherine Giannopoulou: Periodontitis, stress, and depression. In: "Periodontitis and Systemic Diseases: Clinical Evidence and Biological Plausibility"- 1<sup>st</sup> edition, Quintessence Publishing **2021**, 348 pages, 295-321
2. Alexander Dudic, Catherine Giannopoulou and Stavros Kiliaridis: Pain and Discomfort in Orthodontics. In: "Risk Management in Orthodontics"- 2<sup>nd</sup> edition, Quintessence Publishing, **2023**, in press

### ▪ Activités diverses:

- Member of the Teaching Committee of the Faculty of Medicine of the University of Geneva (BUCE) (present activity)
- Director of the Committee for the Bachelor Program in Dentistry (present activity)
- Director of the Committee for the Master of Advanced Studies in Dental Medicine (MAS in dental Medicine) (present activity)
- Co-Director for the Master in Digital Dental Technology (present activity)
- Director of the Hygiene, Prevention, and Infection Control Committee (CHCI) of the CUMD (present activity)
- Member of the Admissions Committee for postgraduate studies in the Faculty of Medicine (present activity)
- Member of the Awards Committee of the Faculty of Medicine (present activity)
- Extraordinary member of the Swissmedic Medicines Expert Committee, SMEC (present activity)
- Member of the Animal Care Commission of the CMU (present activity)
- Expert for the Federal Examination in Preventive Dentistry (present activity)

### ▪ Activités accessoires ou extérieures

Pendant la période du 01.05.2020 au 31.07.2022 (PA à 70%), j'avais une activité privée à 30%.



Giannopoulou Catherine

15 novembre 2023



**UNIVERSITÉ  
DE GENÈVE**

DIVISION DES  
RESSOURCES HUMAINES

## **CAHIER DES CHARGES (corps enseignant)**

FONCTION Professeur associé

Nom et prénom du/de la titulaire	GIANNOPOULOU Ekaterini
Taux d'activité ou heures de cours (selon la fonction)	100 %
Faculté, école, institut	Médecine, Division de Médecine dentaire régénérative et de parodontologie
Section ou département	CUMD - DPAR
Nom et prénom du responsable hiérarchique	BOUILLAGUET Serge

Taux : le total des points 1, 2 et 3 doit atteindre 100%

### **1. ENSEIGNEMENT ET ENCADREMENT DES ETUDIANTS**

Taux consacré 30%

Pré gradué : Bachelor médecine dentaire (BA3):

- Module 3.1B et 3.2 : APP/unité de prévention et thérapie étiologique et unité de microbiologie et écosystème buccal/Parodontologie - tutorial et bilans sessions interactives.

- 3BA : examen oral parodontologie - examinatrice

Master médecine dentaire (MA1 et MA2) :

- Cours MDP, cours parodontologie

- Supervision de travaux de fin d'études

- MA1 et MA2 - examen oral parodontologie ; MA2 - examen oral médecine dentaire préventive => examinatrice

Responsabilités : Responsable du programme de l'enseignement de la Division (pré et post grades)

- Membre du bureau de la Commission de l'Enseignement (BUCE)

- Responsable d'une activité Master 1 et 2 AMC Cameroun

Post gradué et continu : - Direction du comité MAS en médecine dentaire ;

- Cours dans le cadre des formations post grades

- Direction de thèse de doctorat, MDPhD, PhD

- Séminaires et cours de formation continue

- Formation pédagogique des enseignants

### **2. RECHERCHE**

Taux consacré 40%

- Développer sa propre ligne de recherche dans le domaine de la maladie parodontale et sa prévention, ainsi que la pathophysiologie buccale.

- Direction dans les projets de la Division

- Collaboration avec les autres divisions.

- Recherche de fonds

- Recherche sur le lien entre la parodontite et les maladies systémiques

- Recherche sur le traitement de la parodontite

- Publications dans des revues internationales à politique éditoriale

- Représentation aux congrès nationaux et internationaux.



### 3. AUTRES TACHES

#### 3.1. GESTION, ORGANISATION, ADMINISTRATION, DIRECTION

Taux consacré 30%

Cheffe de la Division Médecine dentaire régénérative et de parodontologie

Participer en qualité de membre aux séances du Collège des professeur-es de la CUMD et de la Faculté.  
Contribuer au développement (stratégique) de la CUMD pour lui permettre de remplir sa mission en participant à des commissions et/ou groupes de travail ou de réflexion pérennes ou constitués ad hoc

Gestion administrative du MAS en médecine dentaire

En cas d'absence, la professeure Giannopoulou sera remplacée par un-e professeur-e du Département de médecine dentaire préventive et de premier recours.

Le/la titulaire participera aux tâches de gestion et d'organisation qui sont liées au domaine spécifique qui lui est confié.

#### 3.2. SERVICES A LA CITE

Dans le cadre de son activité, le/la titulaire doit être prêt-e, le cas échéant, à exercer vis-à-vis de la collectivité, une fonction de service rentrant dans la mission de l'Université, ce type d'activité faisant *ipso facto* partie du cahier des charges.

### 4. AUTRES DISPOSITIONS

Soutien à toute activité de la CUMD pouvant relever de la fonction

Par sa signature, le/la candidat/e atteste qu'il/elle a pris connaissance de la proposition de cahier des charges afférent au poste mis au concours qui sera soumise à l'autorité de nomination/d'engagement. La proposition de cahier des charges signée ne saurait en aucun cas être considérée comme un acte d'engagement. Seule la décision de nomination et/ou la signature d'un contrat de travail par l'autorité compétente selon le règlement sur le personnel de l'Université valent acte d'engagement.

Date et signature du responsable hiérarchique

Pr Serge Bouillaquet

15/11/2023

Date et signature du/de la titulaire

Pre Catherine Giannopoulou

15/11/2023

Giannopoulou



**Pr Serge BOUILLAGUET**

Directeur du Département de médecine dentaire préventive  
et de premier recours  
Conseiller académique pour la médecine dentaire

A qui de droit

Genève, 15 novembre 2023

### **Renouvellement du mandat de Professeure Associée de Catherine Giannopoulou**

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En l'absence d'évaluation personnelle pour des raisons fonctionnelles, le soussigné certifie que la Pre Catherine Giannopoulou contribue à l'enseignement pré-gradué de Parodontologie et de Médecine dentaire préventive dans le curriculum de médecine dentaire de la Faculté de médecine. Cet enseignement remplit tous les critères de qualité et de quantité requis par sa structure.



Prof. S. Bouillaguet

## ■ Personal data

- GIANNOPOULOU, Catherine
- 13 June 1963
- Athens, Greece
- 18 chemin Rieu, 1208 Genève
- ORCID: 0000-0001-7079-617X
- ekaterini.giannopoulou@unige.ch
- CUMD – Rue Michel-Servet 1 – 1206 Genève

## ■ Education from the most recent to the oldest

### Degrees

- **2010 Thesis of Privat-Docent**  
“Inflammatory side effects associated with orthodontic tooth movement.”  
University of Geneva, Geneva, Switzerland
- **1995 Doctoral thesis**  
“Morphological and functional characteristics of gingival and periodontal ligament fibroblasts”  
University of Geneva, Geneva, Switzerland
- **1991 Doctoral thesis**  
“Elastase, cathepsin-G,  $\alpha$ -2-macroglobulin and  $\alpha$ -1-antitrypsin in human gingival fluid during experimental gingivitis”  
University of Athens, Athens, Greece
- **1987 Degree of Doctor of Dental Science, DDS**  
School of Dental Medicine, University of Athens, Athens, Greece

### Additional relevant training

- **2021 Certificate on Good Clinical Practices (Level II, Sponsor)**  
University Hospital of Geneva, Geneva, Switzerland
- **2020 Certificate on Good Clinical Practices (Level I, Investigator)**  
University Hospital of Geneva, Geneva, Switzerland
- **2019 Certificate: Research Integrity. Concise (core course) Epigeum**  
Course on line by Oxford University Press
- **2011 Certificate on animal experimentation**  
University of Geneva, Geneva, Switzerland

## ■ Past and present positions from the most recent to the oldest

<b>2021</b>	<b>Associate Professor – Director division of regenerative dental medicine and periodontology</b> , University clinics of dental medicine (CUMD), Geneva – Switzerland (100%)
<b>2020-2021</b>	<b>Associate Professor-</b> Division of regenerative dental medicine and periodontology, CUMD (70%) – 30% private practice
<b>2019 – 2020</b>	<b>Senior Lecturer (MER), Ad interim Director</b> division of regenerative dental medicine and periodontology, CUMD (100%)
<b>2013 – 2019</b>	<b>Senior Lecturer (MER)</b> Division of regenerative dental medicine and periodontology, CUMD (70%)– 30 % private practice
<b>2010 – 2013</b>	<b>Privat Docent and Lecturer</b> Division of regenerative dental medicine and periodontology, CUMD (70%) – 30 % private practice
<b>2008 – 2010</b>	<b>Lecturer</b> Division of regenerative dental medicine and periodontology, CUMD (70%) 30 % private practice
<b>2005 - 2008</b>	<b>Senior Clinical Associate (Chef de Clinique Scientifique)</b> Division of regenerative dental medicine and periodontology, CUMD (70%) – 30 % private practice
<b>2002 – 2005</b>	<b>Lecturer</b> Division of regenerative dental medicine and periodontology, CUMD (60%)– 40 % private practice
<b>1996 – 2002</b>	<b>Research and Teaching Fellow (MA)</b> Division of regenerative dental medicine and periodontology, CUMD (100%)
<b>1994 – 1996</b>	<b>Private Practice</b> (100 %)
<b>1988 – 1994</b>	<b>Research and Teaching Assistant (A)</b> Division of regenerative dental medicine and periodontology, CUMD (100%)

## ■ Academic age

### 30 years (1990-2023)

Private Practice from 2002-2021 (30%-40%)

Private Practice from 1994-1996 (100%)

Birth of my second child in 1997 (4 months break); my first child born on 1994 (no break)

## ■ Honors and awards

2017	SSP-GABA Award, Fribourg, 2017
2007	Best poster award SSP Congress Bern, 2007
2005	MJB Houston Research Paper Award, Amsterdam, 2005
2002	Best poster award SSP Congress Bern, 2002
1996	Award in Periodontology A-J Held, University of Geneva

## ■ Language skills

Greek	Mother tongue
English	very good
French	very good

## Curriculum vitae Research

## ■ Self-evaluation

Over the last 20 years, periodontal diseases and peri-implant infections, their prevention, diagnosis, and therapy, have been my predominant research axes. These issues have been explored through several case-control studies and randomized longitudinal clinical trials. First, I was interested on the role of microbial factors, including the study of distribution patterns in the human dentition, the effect of antimicrobial agents in the therapy of periodontitis and peri-implantitis, the prevalence of specific putative periodontal pathogens in different populations and various methodological issues. Parallel to the clinically applied microbiological research, I studied the local and systemic host response of periodontal disease, as expressed in the gingival crevicular fluid (GCF) and serum, respectively. The acquisition of a multiplex suspension array system allowed us the simultaneous analysis of up to 100 different biomolecules, which enabled us to decipher complex protein interrelationships involved in periodontal diseases. My work on the use of antibiotics as adjuncts to periodontal therapy was financed by the FNRS and allowed us to evaluate not only the clinical, microbiological and host response, but also the development of antimicrobial resistance, a major threat to human health around the world. The last years, I was particularly interested in studying the link between periodontitis and systemic diseases. I developed collaborations with different services of the HUG, resulting in papers showing a strong association between periodontitis and systemic diseases, such as cardiovascular disease, diabetes, Parkinson's disease, and rheumatoid arthritis.

## ■ Research outputs

- Gardelis P, Zekeridou A, Suh N, Le Terrier C, Stavropoulos A, **Giannopoulou C**. A pilot clinical and radiographic study on the association between periodontitis and serious COVID-19 infection. Clin Exp Dent Res. 2022 Oct;8(5):1021-1027.  
<https://archive-ouverte.unige.ch/unige:165717>

In an effort to identify risk factors that could aggravate the COVID-19 infection, we assessed whether younger patients that have been hospitalized in the intensive care unit (ICU) for severe

COVID-19 infection, were also susceptible to severe periodontitis. Based on clinical and radiographic criteria, we found that half of the patients suffered also from severe periodontitis and one-fourth of them were highly susceptible to it.

- Loutan L, Alpizar-Rodriguez D, Courvoisier DS, Finckh A, Mombelli A, **Giannopoulou C**. Periodontal status correlates with anti-citrullinated protein antibodies in first-degree relatives of individuals with rheumatoid arthritis. J Clin Periodontol. 2019 Jul;46(7):690-698.  
<https://archive-ouverte.unige.ch/unige:123581>

We evaluated periodontal status in first-degree relatives of patients with rheumatoid arthritis (FDR-RA), divided in 2 groups according to the presence or absence of anti-citrullinated protein antibodies (ACPAs). We found that all ACPA+ individuals suffered from moderate or severe periodontitis, whereas the ACPA- subjects, presented mild forms of periodontal disease. We suggested that periodontitis is a risk factor acting as a trigger in the development of RA.

- Mombelli A, Almaghlouth A, Cionca N, Courvoisier DS, **Giannopoulou C**. Differential benefits of amoxicillin-metronidazole in different phases of periodontal therapy in a randomized controlled crossover clinical trial. J Periodontology 2015 Mar;86(3):367-75.  
<https://archive-ouverte.unige.ch/unige:79356>

In this clinical trial we assessed the differential outcomes of periodontal therapy supplemented with amoxicillin-metronidazole during either the first non-surgical or the second surgical phase. We found that the advantage of giving the AB during the first phase, is that the disease is resolved quicker, thus reducing the need for additional surgical treatment (**Grant FNRS**)

- Dudic A, **Giannopoulou C**, Meda P, Montet X, Kiliaridis S. Orthodontically induced cervical root resorption in humans is associated with the amount of tooth movement. European Journal of Orthodontics 2017 39(5): 534-540  
<https://archive-ouverte.unige.ch/unige:100535>

External apical root resorption is an undesirable side effect of orthodontic movement. By conducting an experimental tooth movement in 30 subjects, we found that all moved teeth presented severe resorption, which was related to the amount of tooth movement and the location of the teeth. A clinical practice guideline with evidence-based recommendations is necessary in order to predict and avoid this serious side effect (**3 Grants FNRS**)

- **Giannopoulou C**, Kamma JJ, Mombelli A. Effect of inflammation, smoking and stress on gingival crevicular fluid cytokine level. J Clin Periodontology 2003 Feb;30(2):145-53.  
<https://archive-ouverte.unige.ch/unige:159267>

In this clinical study we compared the levels of a number of cytokines in gingival crevicular fluid of periodontally diseased and periodontally healthy subjects. The levels of the studied markers were correlated with the severity of the disease and furthermore with several subject-related environmental factors, such as smoking and stress. These factors should be considered in the diagnosis and treatment of periodontal disease.

- **Methods, tools, infrastructures, data, etc. developed as part of research.**

Multiplex suspension array system for analysis of various biomolecules in serum, crevicular fluid and saliva

Micro-CT scanner for scanning of extracted teeth; Skyscan-10786 micro scanner for image acquisition; OSIRIX software for three-dimensional reconstructions of the images

- **Patents and inventions developed**

No patents developed

- \*\* Publication indicators specific to the discipline (e.g. h-index, total number of citations, total number of publications; first author counting, graphics of citations per year) with [Google Scholar](#).

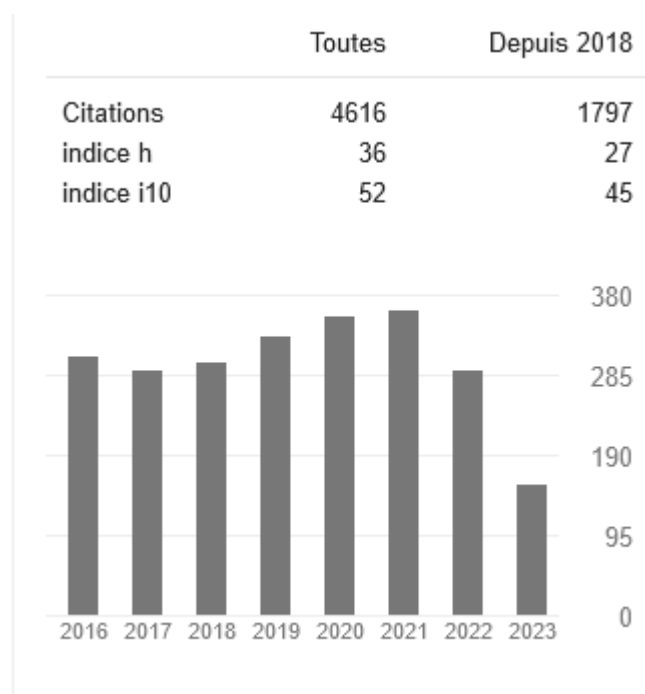
Publications 78

H36 (indice i10=52)

Citations: 4616

First author: 20 articles

Last author: 22 articles



## ■ Scientific planning

\*\* Scientific plan for the next years

Pharmacokinetic considerations and dosing strategies of amoxicillin and metronidazole or azithromycin as adjunct to non-surgical periodontal therapy. A randomized clinical trial.

Changes in oral and gut microbiota composition and its relationship to volatile sulfide compounds (VSC) during and after a 10-day fasting period in healthy subjects.

Development of new tools for prediction and prevention of RA (PREDICT RA): a multicentre study.

Combination of hyaluronic acid with platelet-rich plasma for treatment of peri-implantitis associated hard and soft tissue defects: an in vitro and in vivo study.

A questionnaire survey on the knowledge, attitudes and practice behaviors of diabetologists for the relationship between diabetes and periodontal disease. The transfer of information from the



dentist to the diabetologist concerning oral health, is far from optimal.

Assessment of residual bone level around explanted implants: local and systemic risk factors

## ■ Research collaborations

1. During my career I had the privilege to collaborate with various teams from the CUMD. I got 3 FNRS as PI and 1 as co-investigator for my research in collaboration with the Department of Orthodontics (Pr Stavros Kiliaridis). In parallel, I developed collaborations with various teams from the HUG, such as those of Pr Mc Lin, Pr Axel Finckh, Dr Gastaldi, Pr Burkhard, Pr Schrenzel, Pr Vuilleumier,

Output: Many abstracts and scientific publications (n=16) in excellent international journals; oral and poster presentations in international conferences, Doctoral and MAS theses (n=3)

2. Use of antibiotics as adjunct to non-surgical periodontal treatment (role:PI): in collaboration with Pr Laurent Decosterd, Laboratory of Clinical Pharmacology of the University Hospital of Lausanne (CHUV), we are conducting a randomized clinical trial in order to study the pharmacokinetics and pharmacodynamics of 3 antibiotics, commonly used in the treatment of periodontitis. Knowledge of these two parameters is the best way to select appropriate dosage regimens and schedule intervals that will contribute to therapeutic efficacy, improve clinical outcome and limit microbial resistance. The study has been approved by the CCER and is financed by the FNRS.
3. My team participates in a multicentre study on the prediction and prevention of RA, including 4 centers: Karolinska Institute, Stockholm, Sweden (Pr Aase Hensvold), University of Amsterdam, Netherlands (Pr Dirkjan van Schaardenburg), University of Leeds, United Kingdom (Jackie Nam, MD, PhD) and University of Geneva (Pr Axel Finckh). I am responsible of the "periodontal" part of the study in Geneva which includes the clinical examination and the sampling of saliva, plaque and crevicular fluid for further microbiological and immunologic analyses.
4. Periodontitis is the 6<sup>th</sup> complication of diabetes and treatment of periodontitis improves glycaemic control. In collaboration with the Division of Endocrinology Diabetology Nutrition and Patient Education, HUG, I would like through continuing education programs provide specific guidelines and necessary tools to the diabetologists, on the role of poor oral health and especially of periodontal disease of their diabetic patients (role:PI).
5. Oral and gut microbiota related to nutrition (role:co-PI): Despite the role that the human oral microbiota plays in oral health and disease, little is known about its composition and functional capacity during long-term fasting when the external nutrient supply is reduced or suppressed. This project aims to study the composition of the oral and gut microbiota and of a large scale of locally and systemically produced biomarkers in a cohort of 30 healthy subjects undergoing a 10-days fasting. The study is conducted in collaboration with the Buchinger Wilhelmi Development und Holding GmbH Clinics (Dr Françoise Wilhelmi de Toledo and Dr Robin Mesnage, the Department of Biochemistry-Biotechnology, School of Health Sciences, University of Thessaly, Larissa, Greece (Dr Demetrios Kouretas) and the Department of Health Sciences and Technology, ETH Zürich (Sarah Jayne<sup>4</sup>, Michael Robert Mac Arthur) (role co-PI).

## ■ Research funding and grants (2017-2023)

### Swiss National Science research Foundation

- Pharmacokinetic considerations and dosing strategies of amoxicillin and metronidazole or azithromycin as adjunct to non-surgical periodontal therapy. A randomized clinical trial (32003B-212578/1)  
Principal Investigator: **C. Giannopoulou**, Co-Investigator: Dr E. Choong, Project Partners: Pr. L. Decosterd, Dr A. Zekeridou  
Period: 2023-2026 Amount: **CHF 255'112**

### Fondation pour la recherche sur le diabète

- Evaluation de l'impact du dépistage de la parodontite par intelligence artificielle chez les patients diabétiques  
Principal Investigator: Karim Gariani (HUG), Project Partner: **C. Giannopoulou**  
Period: 2022-2025 Amount **CHF 53'934**

### Association for Dental Infection Control (ADIC)

- Effect of air-polishing with erythritol powder on the prevalence of white spot lesions and gingivitis during orthodontic treatment with fixed appliances: a randomized clinical trial  
Principal Investigator: G. Antonarakis, Co-Investigator: A.- Zekeridou  
Project Partner: **C. Giannopoulou**  
Period: 2023-2026 Amount **CHF 33'500**

### Previous grands obtained by the SNSF

- Mechanisms of post-emergent tooth eruption of unopposed molars in rats (31003A-144202/1)  
Principal Investigator: S. Kiliaridis, Co-Investigator: **C. Giannopoulou**  
Period: **2013-2016** Amount: **CHF 303'000**
- 320030-127539 Principal Investigator : **C. Giannopoulou**  
Period : **2009-2011** Amount : **CHF 154'292.00**
- 320020-122089 Principal Investigator : A. Mombelli, Co-Investigator : **C. Giannopoulou** Period : **2008-2011** Amount : **CHF 288'000**
- 3200B0-112296 Principal Investigator : **C. Giannopoulou**  
Period : **2006-2009** Amount : **CHF 227'000.00**
- 3200-064850 Principal Investigator: **C. Giannopoulou** Period: **2002-2006** Amount: **CHF 167'000**

## ■ Research supervision and mentoring

My research group is composed by 6 research and teaching assistants (A), 2 research and teaching fellows (MA), 1 senior lecturer (CC) and 1 laboratory technician

1. Masters in dental medicine (pre-graduate)

- 2016 Razban Maria
  - 2016 Gruber Simon
  - 2017 Perez Garcia Tamara
  - 2017 Schaub Leandra and Prudente Daniel
  - 2018 De Raemy Fanny
  - 2018 Libishtani Mirjeta
  - 2019 Chirayil Vanessa
  - 2020 Roumie Amal
  - 2020 Sert Myriam
  - 2022 Abergel Doron
  - 2022 Ebersberger Rebecca
  - 2023 Elsa Paroz
  - 2023 Nermine Joumaa
2. Direction and co-directions of doctoral theses, MAS dissertations (post-graduate) and MD-PhD
    - 2016 Hashim Dena (MAS of Advanced Studies in Dentistry)
    - 2017 Zekeridou Alkisti (MAS of Advanced Studies in Dentistry)
    - 2019 Zekeridou Alkisti (Doctoral Thesis)
    - 2019 Sandoval Maria-José (Doctoral Thesis)
    - 2019 Roy Margaux (Doctoral Thesis)
    - 2019 Denes Balazs (MD-PhD)
    - 2020 Loutan Lucie (Doctoral Thesis)
    - 2021 Meyer Simon (Doctoral Thesis)
    - 2021 Razban Maria (Doctoral Thesis)
    - 2023 Sereti Maria (Doctoral Thesis)
  3. Direction of doctoral theses (actual)
 

Perez Garcia Tamara, Martin Rodrigo, Zurbriggen Capella, Gardelis Panagiotis
  4. Direction of the master's Thesis in Dental Medicine (pre-graduate) (actual)
 

2 students M1: Pitteloud Isaline, Razzaq Bareen
  5. Dr Zekeridou Alkisti received by the Faculty of Medicine a 20% position as Research and Teaching Fellow (started in october 2021)
 

I am mentoring Daniel Manoil, MD-PhD (inter-divisionary mentorship program)
  6. Jury member for thesis defense
 

MAS of Advanced Studies in Dentistry (n= 5 in 2023; n= 2 in 2022; n=3 in 2021),  
 Doctoral theses (n= 4 in 2020-2023); PhD (2017, conducted in the University of Bergen, Norway; my role being the first opponent)
  7. Others
 

Member of the Commission for a position of Senior Lecturer (MER) in the Faculty of Medicine of the University of Geneva

## ■ Other scientific activities

1. Membership in scientific societies and other activities:

Member International association of Dental Research (IADR)

Member Suisse Society of Periodontology (SSP)

Member of AAEMDGM (anciens étudiants de médecine dentaire de Genève)

Member of the Hellenic Society of Periodontology  
Member of Geneva Dental Association (AMDG)  
Member of the Swiss Society of Odontostomatology

2. Reviewer for journals:

Journal of Clinical Periodontology, Journal of Periodontology, Clinical Oral Investigations, Clinical and Experimental Dental Research, European Journal of Orthodontics, Oral Health and Preventive Dentistry, Orthodontics and Craniofacial Research, American Journal of Orthodontics and Dentofacial Orthopedics, Archives of Oral Biology, Acta Odontologica Scandinavica.

3. Invited speaker:

2021	Recent advances and the future of Orthodontics, Geneva
2021	19 <sup>th</sup> Reunion of the AAEMDG (anciens étudiants de la CUMD), Geneva
2020	Seminar in the Department of Rehabilitation and Geriatrics, Geneva
2019	Periodontology Today: Geneva
2019	Annual Congress of Swiss Dental Hygienists, Lausanne
2019	General States of Health (Etats Généraux de la Santé): Impact of Dental Care Management, Geneva

## ■ Contributions to Open Science

I privilege all publications in open access.

Publications are also accessible on the Archive Ouverte of UNIGE.

## ■ Scientific outreach

N/A

## ■ Teaching experience

I have always been very active in my teaching activities, totalizing > 380 hours of pre-graduate teaching (the last 5 years: between 380 and 511 hours). I currently teach students in the BA3, M1 and M2 level and I am examiner for the oral examination in Periodontology (BA3, MA1, MA2) and Preventive Dentistry (2MA)

I am supervising Master students, Doctoral and PhD students (19 the last 5 years and actually 2 pre-grade students and 4 doctorate students)

I am Director of the Committee of the Master of Advanced Studies in Dental Medicine. As head of this Master program, I coordinate the theoretical part of the common branches, the exams and the thesis defense by the candidates. I regularly ask the participants for a feed-back on the program which helps me to ameliorate it constantly and respond to their professional and scientific needs.

Together with Professor Irena Sailer, I am co-director of the MAS in Digital Dental Technology

Pedagogical training (UDREM workshops for CUMD lecturers)

- 30.11.2021: Faciliter l'apprentissage des étudiant-es dans l'APP
- 09.12.2021: Introduction à l'APP
- 14.12.2021: Comportements non professionnels chez les étudiant-es, qu'en faire ? (1)
- 25.01.2022: Donner un feedback utile et constructif dans l'APP
- 01.03.2022: Comportements non professionnels chez les étudiant-es, qu'en faire ? (2)
- 10.03.2022: Comment donner un cours : outils et stratégies pour favoriser l'apprentissage
- 24.05.2022 Quand le feedback devient difficile à réaliser

## ■ Development of teaching tools and activities

Being member of the Teaching Committee of the Faculty of Medicine of the University of Geneva (BUCE), for more than 5 years, I participated in the new curriculum for the dental studies in our university (dental teaching starting already in B2).

In 2023 I will chair the Committee of the Bachelor program in Dentistry.

With the unconditional support of UDREM, I had the responsibility to develop/adapt a program for the pedagogical training of the teaching members of the CUMD (Parcours 6). Together with a very motivated team of 3 people working in the CUMD, we created an atelier specific for dentists: "Teaching and Supervising in clinical settings". On the pre-graduate level, with the support of UDREM, an atelier on "Communication" addressed to the students 1MA", is now given by myself and a member of my staff (Dr. Zekeridou).

## ■ Teaching perspective

Continue ma position as co-responsible and tutor in the unit "Complexe orofacial et microbiologie-écosystème buccal" at the CUMD, of the Faculty of Medicine and adapt the program according to the new curriculum of our dental students.

As Division team, introduce new tools in our lectures for both pre and post-graduate students, so they

become interactive (for example Pingo or Mentimeter; very easy tools to use)

Put in practice my research on the link between periodontitis and systemic diseases, by informing through lectures, continuous education or leaflets the health practitioners.

I will continue to follow training with the UDREM workshops and classes and with their support I would like to introduce new workshops for the pedagogical training of the teaching members of the CUMD (Parcours 6).

## Curriculum vitae Management and administration

### ■ Management skills

As director of the division of Regenerative Dentistry and Periodontology, my team consists of 16 collaborators (5 research and teaching assistants (A), 2 research and teaching fellows (MA), 1 lecturer (CE), 2 senior lecturer (CC), 1 external collaborator, 1 laboratory technician, 1 dental hygienist, 3 dental assistants and 1 secretary.

I ensure regular meetings with all the members and at least once a month I set individuals reunions with each member, where I can give personalized feedback, receive his/her remarks, discuss his/her progress and any other issue, both professional and personal.

Being the principal investigator of 4 FNRS grants for 10 years, I earned strong experience on interacting with other researchers or clinicians, organizing the research plan, delegating effectively, planning the budget and hiring new collaborators.

I believe that mutual trust between a group leader and his team, is the only way to achieve goals. I do my best to be supportive, available, and just.

### ■ Institutional involvement

1. Member of the Teaching Committee of the Faculty of Medicine of the University of Geneva (BUCE) (present activity)
2. Director of the Committee for the Bachelor Program in Dentistry (present activity)
3. Director of the Committee for the Master of Advanced Studies in Dental Medicine (MAS in dental Medicine) (present activity)
4. Co-Director for the Master in Digital Dental Technology (present activity)
5. Director of the Hygiene, Prevention, and Infection Control Committee (CHCI) of the CUMD (present activity)
6. Member of the Admissions Committee for postgraduate studies in the Faculty of Medicine (present activity)
7. Member of the Awards Committee of the Faculty of Medicine (present activity)
8. Extraordinary member of the Swissmedic Medicines Expert Committee, SMEC (present activity)
9. Member of the Animal Care Commission of the CMU (present activity)
10. Expert for the Federal Examination in Preventive Dentistry (present activity)



Since I took up the post of head of the Division of Regenerative Dentistry and Periodontology, I have not yet any personal clinical activity in the CUMD. With my team, we discuss regularly their clinical cases, the different treatment options and we establish the treatment planning.

In my private practice for more than 20 years I provided all kind of dental treatment and in parallel, I devoted time on the prevention of the main oral pathologies, caries and periodontal disease.

For the past 10 years I am responsible of the student community immersion internship in Cameroun. Every year for two weeks we go to Cameroun (hospital of Mfou). We offer free dental care to the local population, we organize visits to the surrounding public schools for screening of caries (depistage) and we put a lot of effort for raising the awareness of the people about the importance of dental hygiene. The results of the mission are very positive, and the students underline that during this experience, they learn a lot on a clinical and human level.



Geneva, November 15, 2023

## ■ List of publications (2018-2023) Giannopoulou Catherine

### 1. Publications in peer review journals

#### Original articles published in peer-reviewed journals.

1. Loumé A, Grundler F, Wilhelmi de Toledo F, Giannopoulou C, Mesnage R. Impact of long-term fasting on halitosis, inflammatory markers, and saliva microbiota composition in healthy subjects. *International Journal of Oral Science*, **2023**, submitted for publication.
2. Antonarakis G, Zekeridou A, Kiliaridis S, Giannopoulou C. Periodontal considerations during orthodontic intrusion and extrusion in healthy and reduced periodontium. *Periodontology* 2000. **2023**, submitted for publication.
3. Chatzaki N, Stavropoulos A, Cancela J, Kiliardis S, Giannopoulou C. Ligature-induced periodontitis in rats with three wire types. An exploratory study. *Clin Exp Dent Res*. **2023**, submitted for publication.
4. Loumé A, Gardelis P, Zekeridou A, Giannopoulou C. A survey on systemic antibiotic prescription among Swiss dentists. *Swiss Dental Journal* **2023**, Jul 13;133. Epub ahead of print. PMID: 37439192.
5. Chatzaki N, Zekeridou A, Paroz, E, Gastaldi G, Giannopoulou C. Knowledge, and practice attitudes regarding the relationship between diabetes and periodontitis: A survey among Swiss endocrinologists and general physicians. *BMC Prim Care*. **2023** Nov 13;24(1):238. doi: 10.1186/s12875-023-02184-5. PMID: 37957609; PMCID: PMC10644439.
6. Gardelis P, Ebersberger R, Zekeridou A, Giannopoulou C. Clinical Attitudes, Behaviors and Perceived Stress Towards the COVID-19 Pandemic: A Questionnaire Survey among Swiss Dentists. *Oral Health Prev Dent*. **2022** Oct 19;20(1):379-384. doi: 10.3290/j.ohpd.b3500619. PMID: 36259441.
7. Gardelis P, Zekeridou A, Suh N, Le Terrier C, Stavropoulos A, Giannopoulou C. A pilot clinical and radiographic study on the association between periodontitis and serious COVID-19 infection. *Clin Exp Dent Res*. **2022** Oct;8(5):1021-1027. doi: 10.1002/cre2.610. Epub 2022 Aug 6. PMID: 35932180; PMCID: PMC9562574.
8. Zekeridou A, Gilbert B, Finckh A, Giannopoulou C. Periodontitis in First Degree-Relatives of Individuals With Rheumatoid Arthritis: A Short Narrative Review. *Front Oral Health*. **2022** May 6;3:895753. doi: 10.3389/froh.2022.895753. PMID: 35601818; PMCID: PMC9120603.
9. Lazaridi I, Zekeridou A, Schaub L, Prudente D, Razban M, Giannopoulou C. A Survey on Oral Health Knowledge, Attitudes and Practices of Pregnant Women Attending Four General Health Hospitals in Switzerland. *Oral Health Prev Dent*. **2022** Jan 20;20(1):33-40. doi: 10.3290/j.ohpd.b2573007. PMID: 35049251.
10. Sereti M, Zekeridou A, Cancela J, Mombelli A, Giannopoulou C. Microbiological testing of clinical samples before and after periodontal treatment. A comparative methodological study between real-time PCR and real-time-PCR associated to propidium monoazide. *Clin Exp Dent Res*. **2021** Dec;7(6):1069-1079. doi: 10.1002/cre2.464. PMID: 34216116; PMCID: PMC8638278.
11. Fleury V, Zekeridou A, Lazarevic V, Gaïa N, Giannopoulou C, Genton L, Cancela J, Girard M, Goldstein R, Bally JF, Mombelli A, Schrenzel J, Burkhard PR. Oral Dysbiosis and Inflammation in Parkinson's Disease. *J Parkinsons Dis*. **2021**;11(2):619-631. doi: 10.3233/JPD-202459. PMID: 33646178; PMCID: PMC8150470.

12. Sereti M, Roy M, Zekeridou A, Gastaldi G, Giannopoulou C. Gingival crevicular fluid biomarkers in type 1 diabetes mellitus: A case-control study. *Clin Exp Dent Res*. **2021** Apr;7(2):170-178. doi: 10.1002/cre2.351. PMID: 33369174; PMCID: PMC8019764.
13. Antonarakis GS, Ameer S, Giannopoulou C, Kiliaridis S. Perception of pain in Class II malocclusion children treated with cervical headgear: a randomized controlled trial. *Eur J Orthod*. **2021** Apr 3;43(2):222-228. doi: 10.1093/ejo/cjaa048. PMID: 32812021.
14. Razban M, Giannopoulou C. Knowledge and Practices of Oral Health Care During Pregnancy: A Survey Among Swiss Dentists. *Oral Health Prev Dent*. **2020**;18(1):447-454. doi: 10.3290/j.ohpd.a44682. PMID: 32515415.
15. Megally A, Zekeridou A, Cancela J, Giannopoulou C, Mombelli A. Short ultrasonic debridement with adjunctive low-concentrated hypochlorite/amino acid gel during periodontal maintenance: randomized clinical trial of 12 months. *Clin Oral Investig*. **2020** Jan;24(1):201-209. doi: 10.1007/s00784-019-02949-2. PMID: 31079243.
16. Nagy U, Guédat C, Giannopoulou C, Schimmel M, Müller F, Srinivasan M. Microbiological evaluation of LOCATOR® Legacy attachments: A cross-sectional clinical study. *Clin Exp Dent Res*. **2019** Jul 18;5(5):476-484. doi: 10.1002/cre2.209. PMID: 31687180; PMCID: PMC6820581.
17. Müller Campanile V, Megally A, Campanile G, Gayet-Ageron A, Giannopoulou C, Mombelli A. Risk factors for recurrence of periodontal disease in patients in maintenance care in a private practice. *J Clin Periodontol*. **2019** Sep;46(9):918-926. doi: 10.1111/jcpe.13165. PMID: 31271667.
18. Roy M, Gastaldi G, Courvoisier DS, Mombelli A, Giannopoulou C. Periodontal health in a cohort of subjects with type 1 diabetes mellitus. *Clin Exp Dent Res*. **2019** Mar 9;5(3):243-249. doi: 10.1002/cre2.178. PMID: 31249705; PMCID: PMC6585577.
19. Zekeridou A, Mombelli A, Cancela J, Courvoisier D, Giannopoulou C. Systemic inflammatory burden and local inflammation in periodontitis: What is the link between inflammatory biomarkers in serum and gingival crevicular fluid? *Clin Exp Dent Res*. **2019** Jan 24;5(2):128-135. doi: 10.1002/cre2.162. PMID: 31049215; PMCID: PMC6483040.
20. Loutan L, Alpizar-Rodriguez D, Courvoisier DS, Finckh A, Mombelli A, Giannopoulou C. Periodontal status correlates with anti-citrullinated protein antibodies in first-degree relatives of individuals with rheumatoid arthritis. *J Clin Periodontol*. **2019** Jul;46(7):690-698. doi: 10.1111/jcpe.13117. PMID: 31025368.
21. Meyer S, Giannopoulou C, Cancela J, Courvoisier D, Müller F, Mombelli A. Experimental mucositis/gingivitis in persons aged 70 or over: microbiological findings and prediction of clinical outcome. *Clin Oral Investig*. **2019** Oct;23(10):3855-3863. doi: 10.1007/s00784-019-02815-1. PMID: 30685795.
22. Dorotheou D, Bochaton-Piallat ML, Giannopoulou C, Kiliaridis S. Expression of  $\alpha$ -smooth muscle actin in the periodontal ligament during post-emergent tooth eruption. *J Int Med Res*. **2018** Jun;46(6):2423-2435. doi: 10.1177/0300060518769545. PMID: 29923776; PMCID: PMC6023069.

## 2. Book chapters

1. Alkisti Zekeridou and Catherine Giannopoulou: Periodontitis, stress, and depression. In: "Periodontitis and Systemic Diseases: Clinical Evidence and Biological Plausibility"- 1<sup>st</sup> edition, Quintessence Publishing **2021**, 348 pages, 295-321
2. Alexander Dudic, Catherine Giannopoulou and Stavros Kiliaridis: Pain and Discomfort in Orthodontics. In: "Risk Management in Orthodontics"- 2<sup>nd</sup> edition, Quintessence Publishing, **2023**, in press