

RAPPORT D'ACTIVITÉS DANS LE CADRE DU RENOUELEMENT DU MANDAT DE PROFESSEUR TITULAIRE, MEDECIN HOSPITALO-UNIVERSITAIRE

- **Période du mandat:** du [01/10/2018] au [31/12/2022].
- **Activités d'enseignement :** Les heures d'enseignement données dans le cadre du mandat sont résumées en annexe. Pour des raisons techniques, je ne peux fournir actuellement de rapports d'évaluation personnel. Ce défaut pourra être corrigé, à la reprise de janvier 2023.

Je supervise le travail d'une étudiante en médecine de l'UNIL (Ranjan Singh). Son projet est décrit dans la partie Research Supervision and Mentoring.

- **Activités de recherche :** Mes activités de recherche sont décrites dans la partie Research output, Scientific planning, Research Supervision and Mentoring du CV annexé.

- **Activités cliniques:**

La période 2018 à 2022 a été marquée par un très important développement de l'activité clinique dans le service de pneumologie du CHVR et l'unité de pneumologie de l'HRC. Le service de pneumologie des HUG a traversé une période de difficulté et a connu un changement dans la chefferie de service. Dans ces circonstances, il m'a été difficile de donner plus que des aides cliniques ponctuelles au service. Nous avons pu travailler sur des procédures communes en profitant de notre expertise mutuelle durant la période du COVID. Une étroite collaboration a été mise en place pour la mucoviscidose.

- **Publications pendant la période du mandat :** Une liste de publications (17) pour la période 2018-2022 se trouvent dans la liste de publications des 5 dernières années annexée.

- **Activités diverses :**

Je n'ai de mandat spécifique pour les HUG.

- **Activités accessoires ou extérieures :** (liste des activités accessoires ou extérieures effectuées pendant la durée du mandat)

Je n'ai de mandat spécifique pour les HUG. Dans le cadre de mes activités aux HUG, je n'ai aucun conflit d'intérêt pouvant affecter les HUG ou l'UNIGE.

publique, plus d'information disponible [sur le site du Rectorat](#)). [Le registre des liens d'intérêts](#) vous permet de réaliser cette évaluation rapide au moyen d'un simple questionnaire.

P. O. Bridevaux

Pierre-Olivier BRIDEVAUX, 31 décembre 2022



**UNIVERSITÉ
DE GENÈVE**

DIVISION DES
RESSOURCES HUMAINES

CAHIER DES CHARGES (corps enseignant)

FONCTION Professeur titulaire

Nom et prénom du/de la titulaire BRIDEVAUX Pierre-Olivier

Taux d'activité ou heures de cours (selon la fonction) 20 %

Faculté, école, institut Faculté de médecine

Section ou département Département de médecine

Nom et prénom du responsable hiérarchique FERRARI Serge

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

1. ENSEIGNEMENT ET ENCADREMENT DES ETUDIANTS

Taux consacré 80

Bachelor de médecine humaine:

- Tuteur APP de l'Unité Respiration
- DC Epidémiologie 2ème année

Master de médecine humaine;

- AMC de médecine Interne (Enseignement donné au CHVR, Sion, environ 8h/année)

Enseignement postgrade:

- Formation avancée pour médecins/techniciens dans le domaine des tests respiratoires (Ligue Pulmonaire Suisse, formation PG structurée)
- Mise en place du projet "Entrustable Professional Activity" pour la Société Suisse de Pneumologie
- Formations avancées (maladies de l'interstice- Université de Sfax, Tunisie; tests respiratoires-Faculté de médecine et de pharmacie d'Agadir, Maroc)

2. RECHERCHE

Taux consacré 20

Projets cliniques collaboratifs dans les domaines de l'asthme et des fonctions pulmonaires

Encadrement d'internes de Pneumologie des HUG pour des projets de recherche dans ce contexte

Projets collaboratifs dans le domaine de la réadaptation respiratoire

3. AUTRES TACHES

Taux consacré 0%

3.1. GESTION, ORGANISATION, ADMINISTRATION, DIRECTION

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

Le Professeur Pierre-Olivier Bridevaux est médecin consultant aux HUG dans le Service de pneumologie dirigé par la Professeure Anne Bergeron en tant que médecin-chef du Service de pneumologie du Centre Hospitalier du Valais Romand.

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

Professeur Serge Ferrari
Directeur académique du
Département de médecine

Date et signature du/de la titulaire

19.01.2025 Pierre-Olivier Bridevaux

Prof BRIDEVAUX Pierre-Olivier

Respiration G2
 Nombre de réponses = 12 (100 %)



Indicateurs globaux

Index global

1. Evaluation globale



2. Processus d'apprentissage



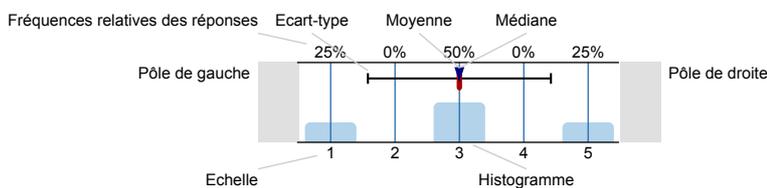
4. Régularité du feedback



Résultats des questions prédéfinies

Légende

Question



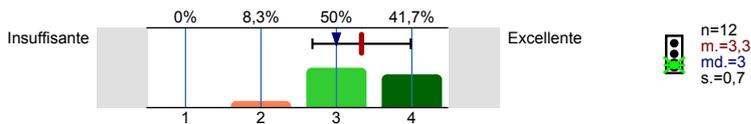
n.= nombre
 m.= moyenne
 md.=Médiane
 s.=Ecart-type
 ab.=abstention



Description des symboles de qualité: Moyenne au-dessous de la directive de qualité. Moyenne dans la marge de conformité. Moyenne conforme ou au-delà de la directive de qualité.

1. Evaluation globale

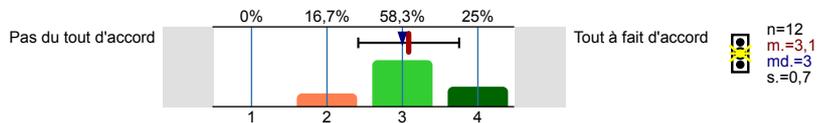
1.1) Votre appréciation globale du tuteur



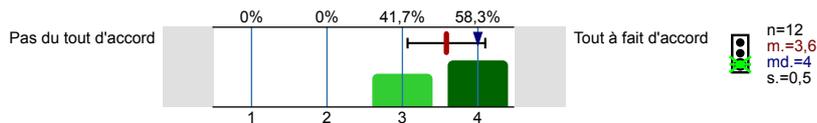
2. Processus d'apprentissage

Mon tuteur:

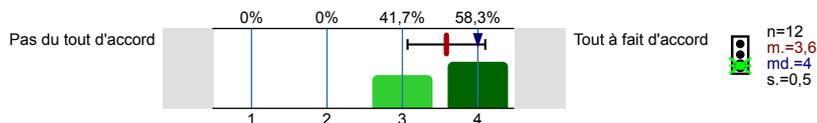
2.1) montre qu'il connaît bien les étapes de l'APP

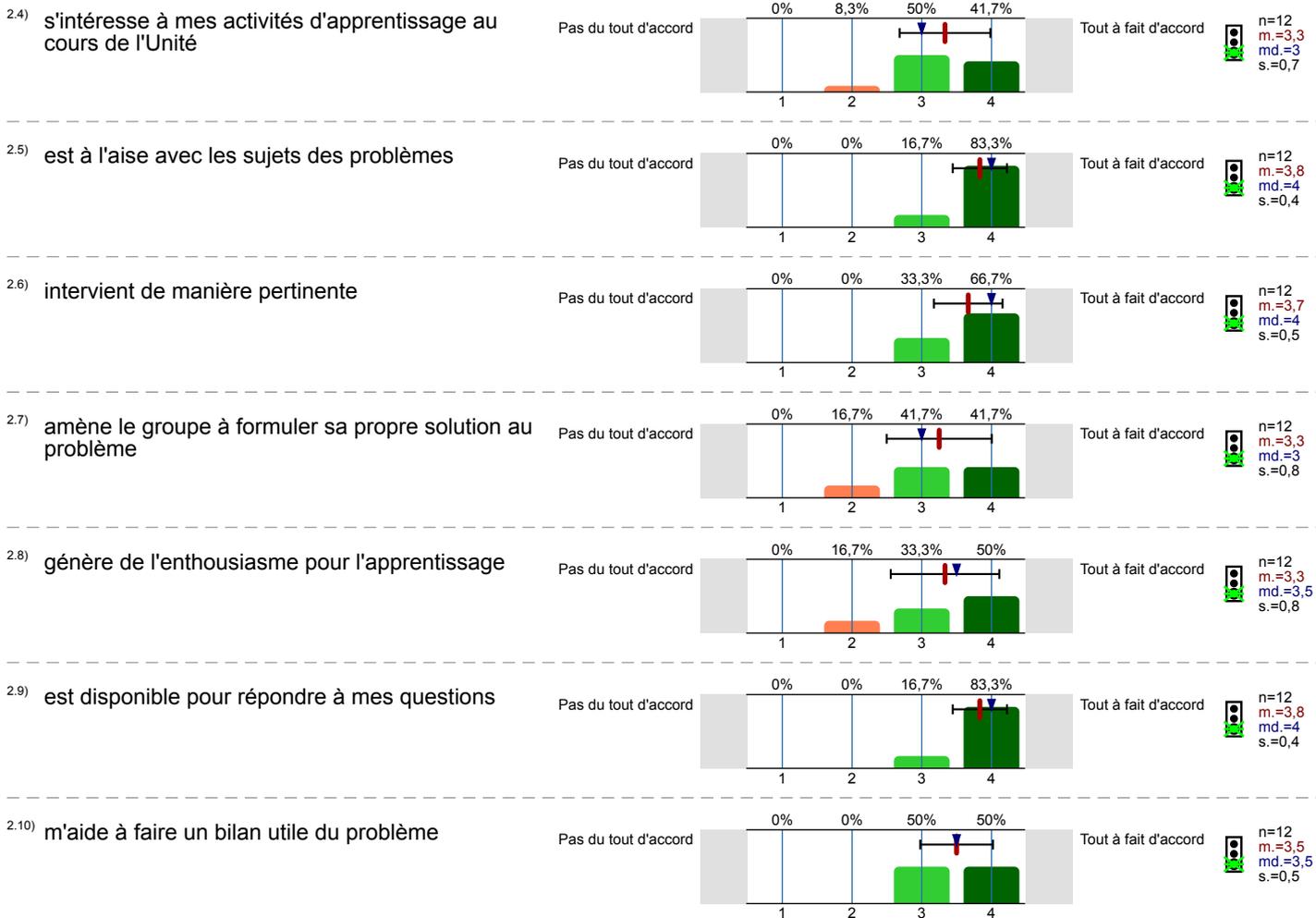


2.2) m'aide à identifier et à analyser les points fondamentaux des problèmes



2.3) me guide dans l'élaboration des objectifs d'apprentissage



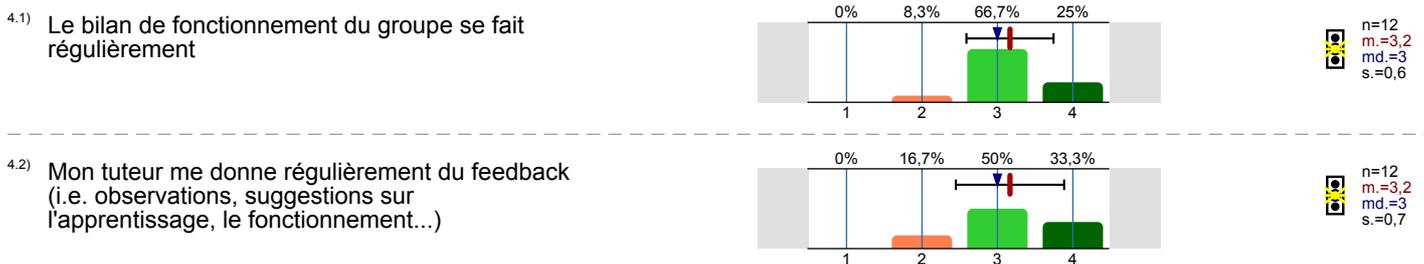


3. Fonctionnement du groupe

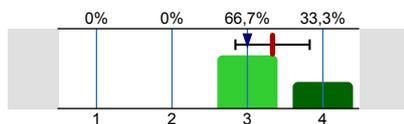
Dans mon groupe:



4. Régularité du feedback



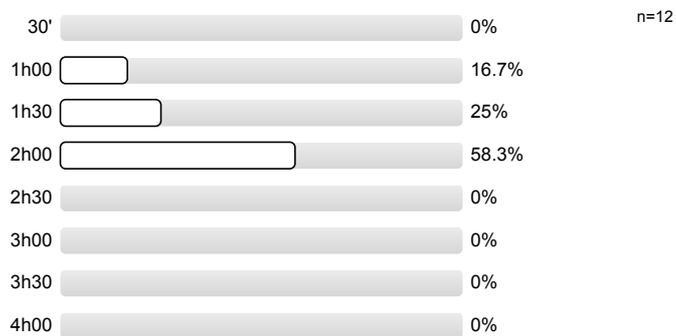
4.3) Le tuteur donne régulièrement du feedback au groupe



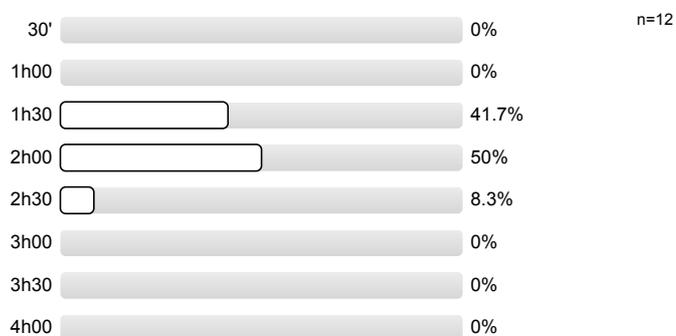
n=12
m.=3,3
md.=3
s.=0,5

5. Durée des tutoriaux et bilans

5.1) Durée moyenne des tutoriaux de votre groupe



5.2) Durée moyenne des bilans de votre groupe



Profil

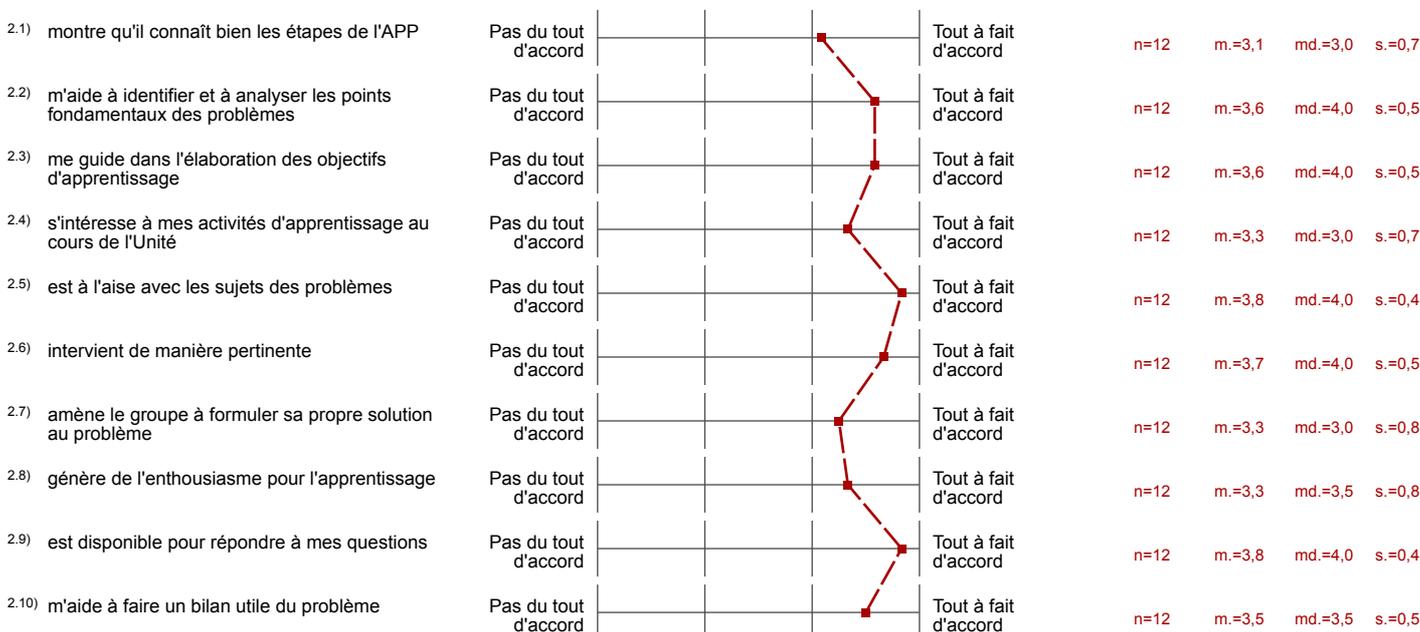
■ Département: Respiration
■ Référent évaluation: Prof BRIDEVAUX Pierre-Olivier
■ Objet: Respiration G2
■ (Nom de l'enquête)

Valeurs utilisées dans la ligne de profil: Moyenne

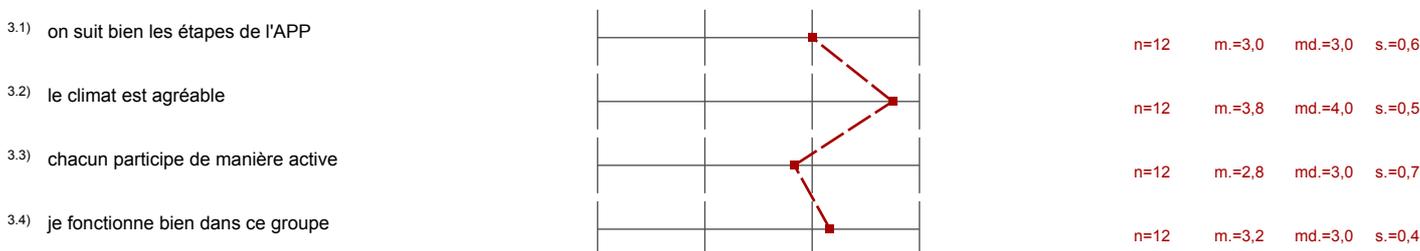
1. Evaluation globale



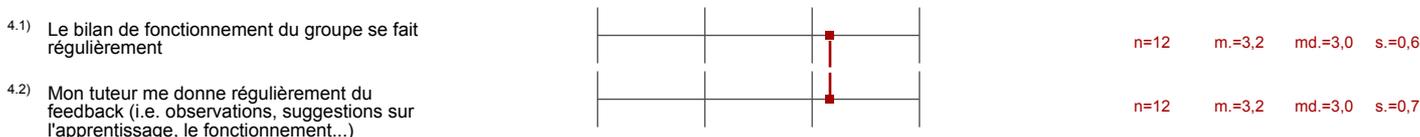
2. Processus d'apprentissage



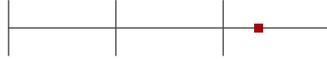
3. Fonctionnement du groupe



4. Régularité du feedback



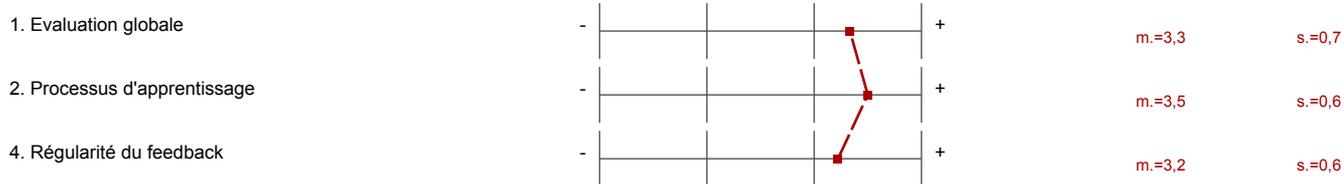
4.3) Le tuteur donne régulièrement du feedback au groupe



n=12 m.=3,3 md.=3,0 s.=0,5

Ligne de profil pour indicateurs

Département: Respiration
 Référent évaluation: Prof BRIDEVAUX Pierre-Olivier
 Objet: Respiration G2
 (Nom de l'enquête)



Résultats des questions ouvertes

1. Evaluation globale

1.2) Indiquez les qualités que vous appréciez chez votre tuteur

- Bonne maîtrise du sujet, fait participer tout le monde
- Connaît bien le sujet.
- Disponible, actif, sympathique, donne accès à des sources supplémentaires
- Humain, intéressant, pertinent, leader
- Répond toujours de façon clair aux questions
Dispose de beaucoup de slides/tests cliniques pour illustrer les problèmes et faire des comparaisons avec les autres problèmes
Fournit des références en plus pour illustrer certains points qui peuvent être compliqué ou parfois peu clairs
Nous pousse toujours à réfléchir plus loin et à comprendre vraiment les mécanismes sous jacent.
Interroge des élèves quand personnes ne répond, bien car donne une dynamique au groupe, moins de moment de blanc
- très compétent

1.3) Suggestions à votre tuteur pour ses prochains tutoriaux

- Faire en sorte que l'APP ressemble plus à une discussion, et être plus au courant des objectifs spécifiques de chaque APP.
- Motiver un peu plus les étudiants à intervenir durant l'APP
- Respecter un peu plus les étapes de l'APP qui permette au groupe de prendre un peu plus les choses en main et d'être plus proactif
Faire plus souvent un retour au problème à la fin du bilan afin de remettre en relation ce qu'on a appris durant le bilan avec le problème lui-même.
- Suivre le plan d'APP et plus se baser sur la vignette : souligner les mots importants, discuter des signes cliniques de la vignette,...
- manque de clarté sur certains schémas présentés par les étudiants,

2. Processus d'apprentissage

2.11) Commentaires sur le processus d'apprentissage

- On ne suit pas toujours les étapes de l'APP (surtout sur les premiers problèmes).

3. Fonctionnement du groupe

3.5) Commentaires sur le groupe

- Manquait un peu de participation de chaque personne

4. Régularité du feedback

4.4) Le tuteur nous a donné du feedback sur les points suivants

L'évaluation ne sera pas affichée, pour cause de taux de réponse insuffisant.

4.5) J'aurais souhaité recevoir du feedback sur les points suivants

L'évaluation ne sera pas affichée, pour cause de taux de réponse insuffisant.

Prof BRIDEVAUX Pierre-Olivier

Respiration G2

Nombre de réponses = 5 (50 %)



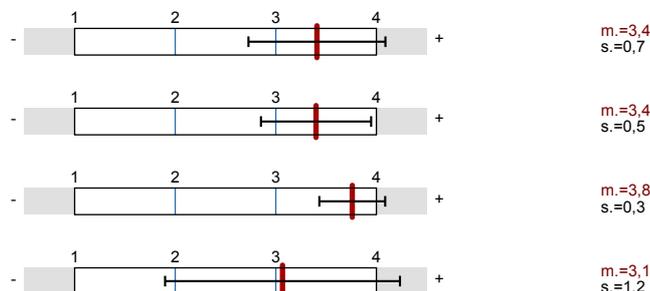
Indicateurs globaux

Index global

1. Evaluation globale

2. Processus d'apprentissage

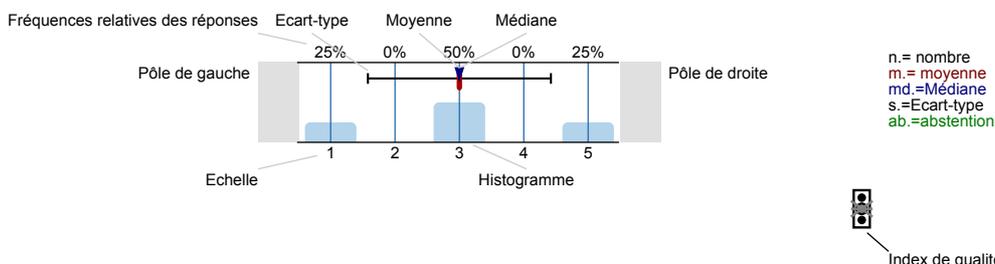
4. Régularité du feedback



Résultats des questions prédéfinies

Légende

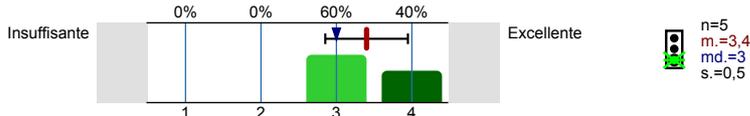
Question



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1. Evaluation globale

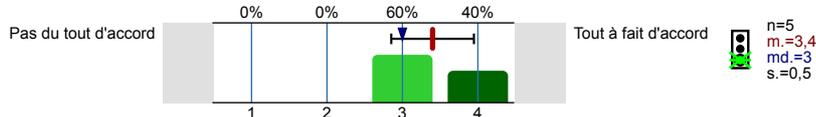
1.1) Votre appréciation globale du tuteur



2. Processus d'apprentissage

Mon tuteur:

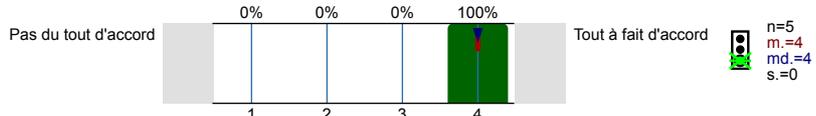
2.1) montre qu'il connaît bien les étapes de l'APP

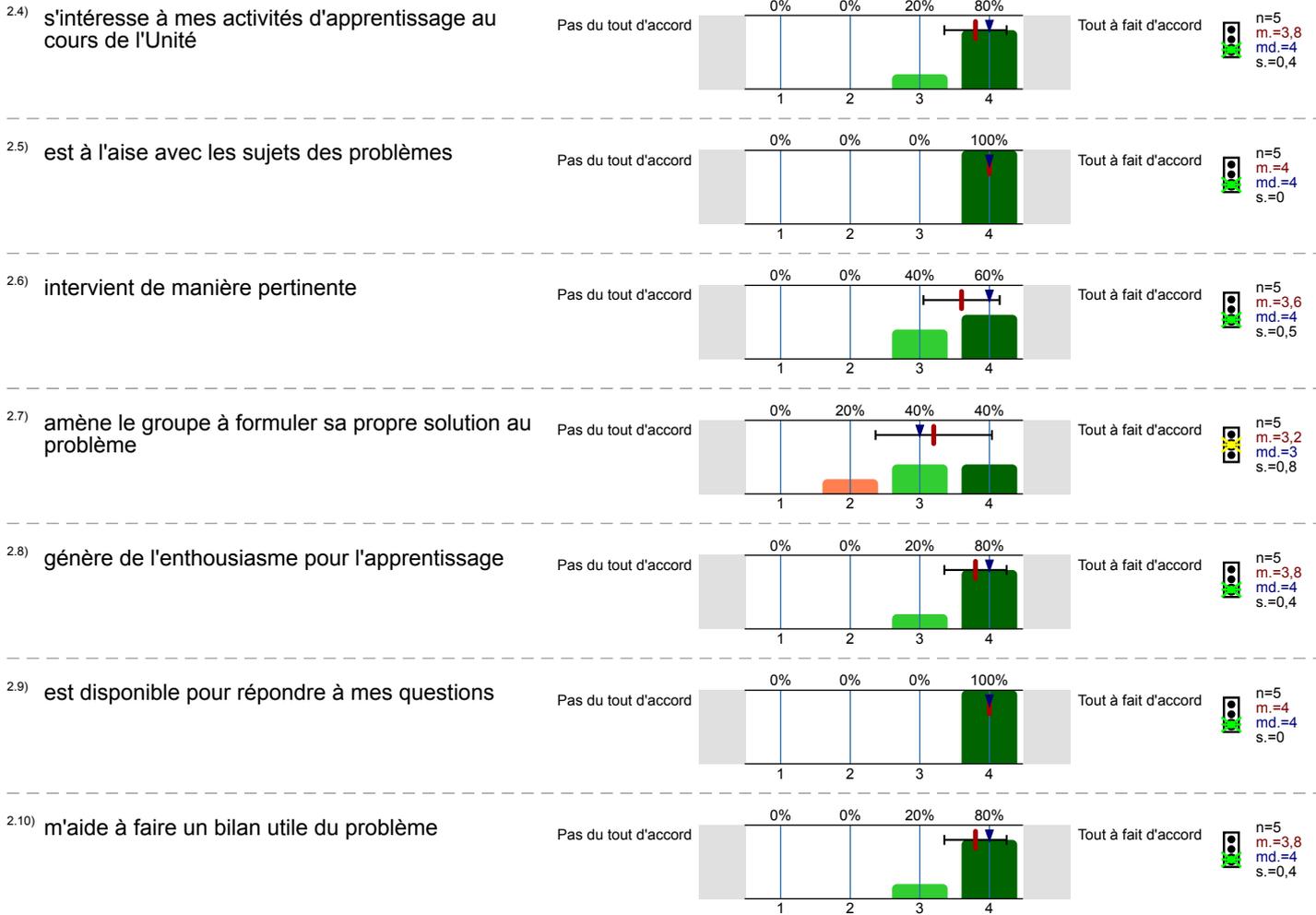


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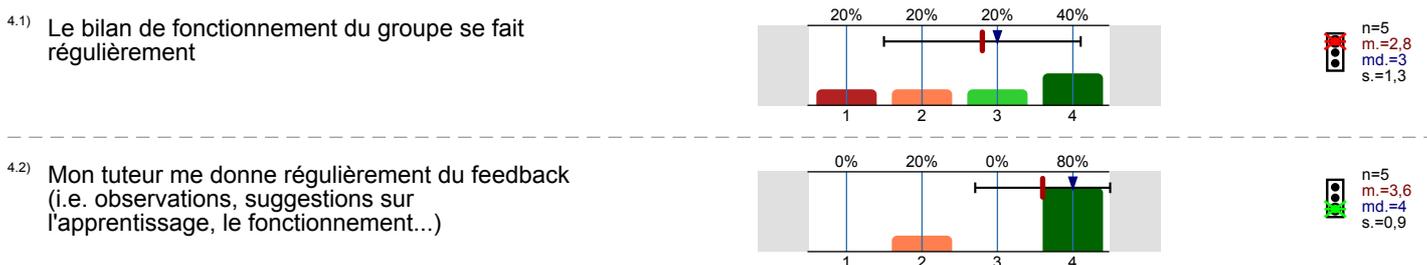


3. Fonctionnement du groupe

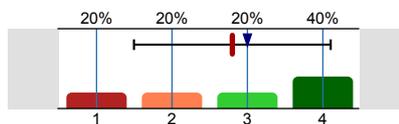
Dans mon groupe:



4. Régularité du feedback



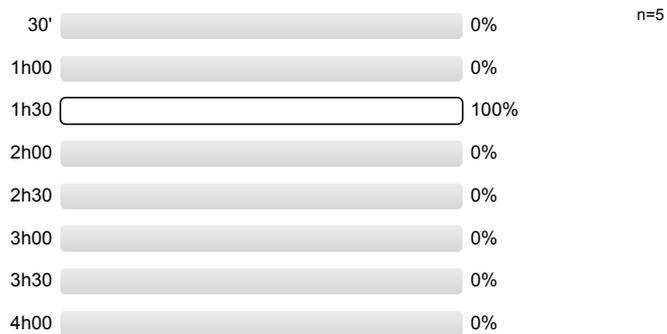
4.3) Le tuteur donne régulièrement du feedback au groupe



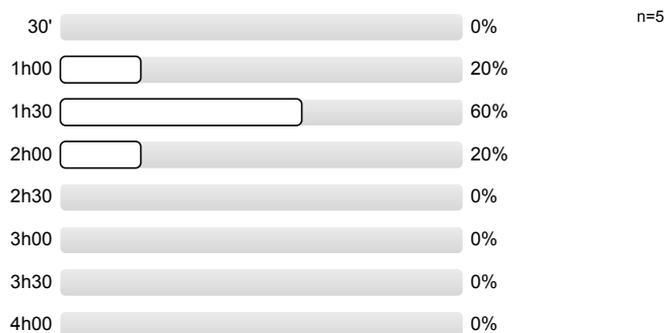
n=5
m.=2,8
md.=3
s.=1,3

5. Durée des tutoriaux et bilans

5.1) Durée moyenne des tutoriaux de votre groupe



5.2) Durée moyenne des bilans de votre groupe



Profil

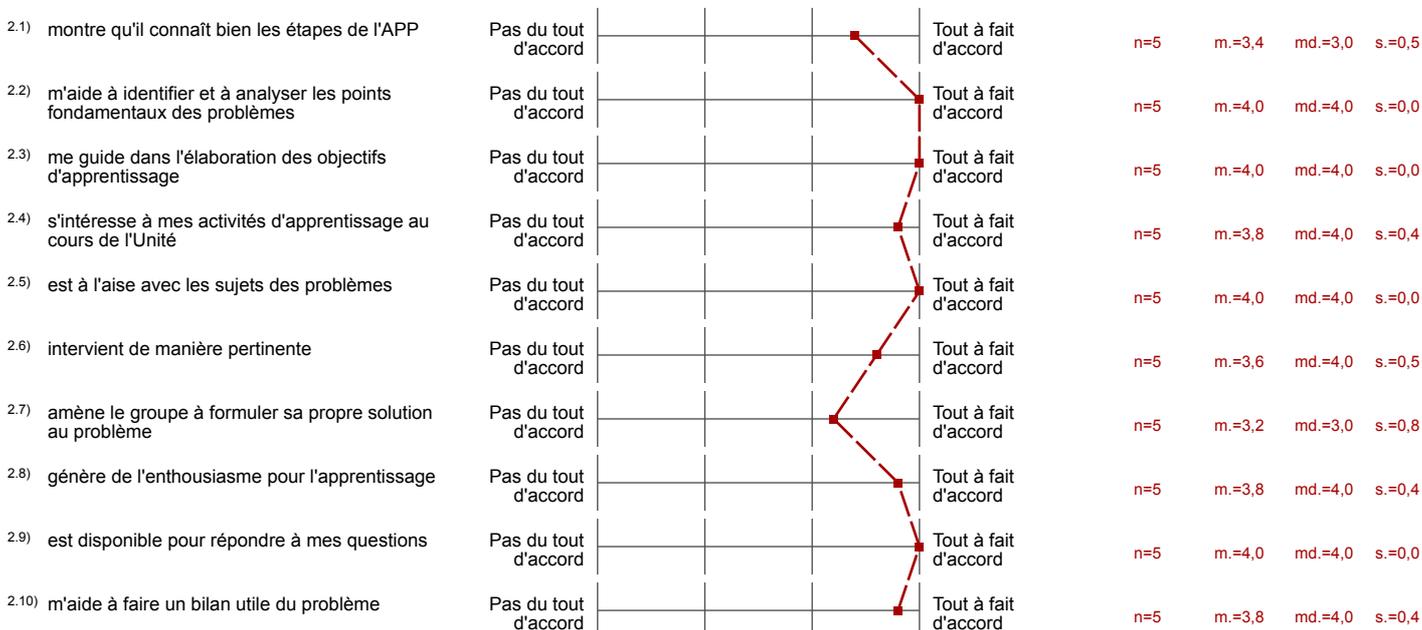
■ Département: Respiration
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Valeurs utilisées dans la ligne de profil: Moyenne

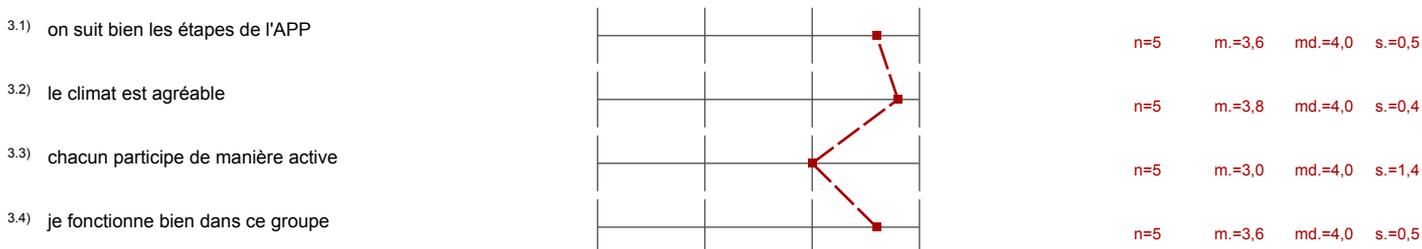
1. Evaluation globale



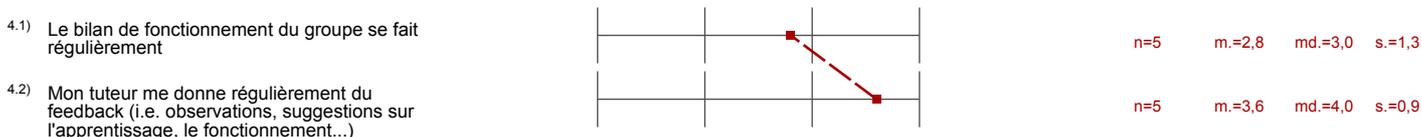
2. Processus d'apprentissage



3. Fonctionnement du groupe



4. Régularité du feedback



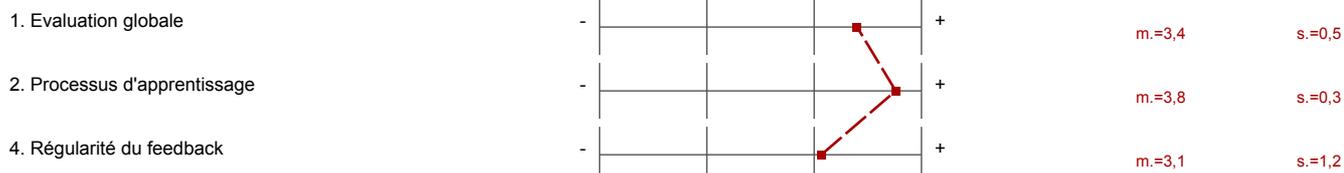
4.3) Le tuteur donne régulièrement du feedback au groupe



n=5 m.=2,8 md.=3,0 s.=1,3

Ligne de profil pour indicateurs

■ Département: Respiration
■ Référent évaluation: Prof BRIDEVAUX Pierre-Olivier
■ Objet: Respiration G2
■ (Nom de l'enquête)



Résultats des questions ouvertes

1. Evaluation globale

1.2) Indiquez les qualités que vous appréciez chez votre tuteur

- Donne beaucoup d'informations complémentaires qui contextualisent les connaissances discutées
- Impliqué
- Nous guide, parle d'expérience clinique réel
- Participation aux discussions, explications des concepts difficiles et discussion d'exemples pour mieux comprendre les notions vues en cours ; aide pour structurer les tutoriaux et bilans.

1.3) Suggestions à votre tuteur pour ses prochains tutoriaux

- Parfois, il pourrait laisser un peu plus de temps aux étudiants pour répondre eux-mêmes aux questions qu'ils se posent
- Prend tout souvent le lead de l'app et la parole

2. Processus d'apprentissage

2.11) Commentaires sur le processus d'apprentissage

- Nous avons couvert tous les objectifs (établis lors des tutoriaux) durant les bilans et nous avons pu approfondir nos connaissances à l'aide d'exemples.

3. Fonctionnement du groupe

3.5) Commentaires sur le groupe

- Beaucoup de personnes qui ne participent pas. Le fait de faire les APP seul ou à 2-3 devient épuisant (même situation que dans d'autres unités).

4. Régularité du feedback

4.4) Le tuteur nous a donné du feedback sur les points suivants

- Comment apprendre les thèmes
Sujets importants
- Fonctionnement du groupe et organisation des séances de travail.
- Je ne pense pas que ce soit utile d'avoir un feedback pour chaque APP si le groupe fonctionne bien. Un a la fin suffit amplement

4.5) J'aurais souhaité recevoir du feedback sur les points suivants

- Fonctionnement du groupe

Curriculum vitae General information

■ Personal data

Prof. Pierre-Olivier Bridevaux, MD, MSc

July 27th 1967

La Chaux de Fonds (NE)

4, chemin Beausoleil, 1206 Genève

<https://orcid.org/0000-0002-8021-0950>

pierre-olivier.bridevaux@hopitalvs.ch

pierre-olivier.bridevaux@hopitalrivierachablais.ch

pierre-olivier.bridevaux@hcuge.ch

pierre-olivier.bridevaux@unige.ch



Professional address :

Service de pneumologie, Hôpital du Valais, Grand Champsec 85, 1951 Sion

■ Education

Degrees

2014	Professor (Professeur titulaire, Geneva Medical School, University of Geneva)
2011	Privat Docent, Geneva Medical School, University of Geneva
2007	Master in Science, (Clinical Epidemiology) Erasmus University, Rotterdam,
2005	Board certification in Pneumology (FMH Pneumologie)
2002	Doctorate, University of Lausanne
2002	Board certification in Internal Medicine (FMH Médecine Interne), Lausanne
1994	Medical doctor, Lausanne
1987	Maturité Latine, Collège de l'abbaye, St Maurice (VS)

Additional relevant training

2022 July 27th	Good Clinical practice, Unige
2022 January-March	St Paul Providence Hospital, Heart & Lung Innovation Center (interstitial lung disease group), Visiting Professor
2012	Good Clinical Practice (promoter & investigator), UniGE
2008	Longitudinal analyses, Southampton University, UK
2007	Generalized linear and latent mixed models (GLLAM), advanced course on multilevel modelling, Lausanne (IUMSP)

■ Past and present positions

2013-current	Service de Pneumologie, Hôpital du Valais, Head of service (100%)
2017-current	Unité de pneumologie, Hôpital Riviera Chablais, Head of service (100%)
2020-current	Ligue Pulmonaire Valaisanne – Referring physician (100%)
2013-current	Promotion Santé Valais Steering Committee (100%)
2013-current	Service de Pneumologie, Département des Spécialités Médicales Hôpitaux Universitaires de Genève. Associate Physician (20%)
2017 - 2018	SAPALDIA (Swiss Study on Air Pollution and Lung Disease) Site director (Montana)
2006 - 2016	SAPALDIA (Swiss Study on Air Pollution and Lung Disease), scientific collaborator
2013- 2020	Medical Commission of Promotion Santé Valais, President
2011 - 2013	Service de Pneumologie, Département des Spécialités Médicales Hôpitaux Universitaires de Genève, Prof T. Rochat. Attending physician
2006 – 2010	HUG, service de Pneumologie, Chief resident
2006 – 2006	Policlinique Médicale Universitaire, Lausanne, Prof J. Cornuz. Chief resident
2006 – 2006	Institut Universitaire de Médecine Sociale et Préventive, Lausanne, Prof B.

2003 – 2006	Burnand et Prof J. Cornuz. <i>Chief resident</i>
2001- 2003	Service de Pneumologie , (CHUV), Lausanne, Prof Ph. Leuenberger <i>Resident</i>
	Health Services Research & Development and Division of Pulmonary and Critical Care Medicine , Veterans Affairs Medical Center, Puget Sound Health Care System, Seattle (USA), Prof S.D. Fihn et Prof L.D. Hudson, <i>Senior fellow</i> .
2000 – 2001	Unité d'épidémiologie clinique , Institut Universitaire de Médecine Sociale et Préventive, Lausanne, Prof. B. Burnand, <i>Chief resident</i>
1999 – 2001	Département de Médecine Interne (CHUV) , Lausanne, Prof. P. Nicod, <i>Chief resident</i>
1998 – 1999	Département de Médecine Interne , Hôpital du Chablais, Monthey, Dr Laurencet et Delaloye, <i>Chief resident</i>
1997–1998	Département de Médecine Interne (CHUV) , Lausanne, Prof. P. Nicod, <i>Resident</i>
1996 – 1996	Unité de Pharmacologie clinique (CHUV) , Lausanne Prof. J. Biollaz, <i>Resident</i>
1995 – 1996	Département de chirurgie , Hôpital du Chablais, Monthey, Dr Preitner <i>Resident</i>

■ Academic age

My academic age is 20 years (Fan VS, Bryson CL, Curtis JR, Fihn SD, Bridevaux PO, McDonnell MB, Au DH: **Inhaled corticosteroids in chronic obstructive pulmonary disease and risk of death and hospitalization: time-dependent analysis**. *Am J Respir Crit Care Med* 2003, **168**:1488-1494)

■ Honors and awards

2021	Swiss Pulmonary Society, Meeting's best presentation (3rd prize)
2008	American Thoracic Society Awardee for COPD research

■ Language skills

French (mother tongue), English (very good), German (good), Italian (basic), Latine (Sic itur ad astra)

■ Self-evaluation

The definition, classification and establishment of risk factors for common chronic respiratory diseases such as COPD and asthma guided my early years of clinical and epidemiological research. Two publications in this field were of importance for the pulmonary community (prevalence of COPD and asthma in CH and significance of chronic respiratory symptoms). My interest then turned to the understanding of respiratory functional decline as measured in the lung function laboratory. We have shown important differences between various devices which has impact on epidemiological longitudinal studies and clinical practice. This research allowed clinicians in the field to become aware of devices' differences and manufacturers to correct factors causing measurement biases. The emergence of the COVID-19 and secondarily of the post-COVID syndrome has led to several research works, particularly oriented on dysfunctional breathing. See below for references.

■ Research outputs

Dysfunctional breathing diagnosed by cardiopulmonary exercise testing in 'long COVID' patients with persistent dyspnoea I. Fresard, L. Genecand, M. Altarelli, G. Gex, P. Vremaroiu, A. Vremaroiu-Coman, P-O Bridevaux. *BMJ Open Respir Res* 2022 Vol. 9 Issue 1
<https://www.ncbi.nlm.nih.gov/pubmed/35354589> [1]

Dysfunctional breathing (DB) has been sporadically described after COVID-19 by others. Analysis of breathing pattern as assessed by CPET shows that almost one-third of 'long COVID-19' patients had DB. Most DB were characterised by an irregular tidal volume and breathing frequency, without hyperventilation, which has been not been described so far.

Spirometer Replacement and Serial Lung Function Measurements in Population Studies: Results From the SAPALDIA Study P. O. Bridevaux, E. Dupuis-Lozeron, C. Schindler, D. Keidel, M. W. Gerbase, N. M. Probst-Hensch, et al. *Am J Epidemiol* 2015 Vol. 181 Issue 10 Pages 752-61
<https://www.ncbi.nlm.nih.gov/pubmed/25816817> [2]

The study shows the large differences between different type of spirometers and propose a statistical correction tool.

Prevalence of airflow obstruction in smokers and never-smokers in Switzerland P. O. Bridevaux, N. M. Probst-Hensch, C. Schindler, I. Curjuric, D. Felber Dietrich, O. Braendli, et al. *Eur Respir J* 2010 Vol. 36 Issue 6 Pages 1259-69
<https://www.ncbi.nlm.nih.gov/pubmed/20413537>[3]

Using the SAPALDIA study we measured the prevalence of COPD in the Swiss adult population. We found that one third of COPD subjects were neversmokers. The study highlighted that prevalence of COPD was lower in CH compared to other european countries

Long-term decline in lung function, utilisation of care and quality of life in modified GOLD stage 1 COPD P. O. Bridevaux, M. W. Gerbase, N. M. Probst-Hensch, C. Schindler, J. M. Gaspoz and T. Rochat, *Thorax* 2008 Vol. 63 Issue 9 Pages 768-74
<https://www.ncbi.nlm.nih.gov/pubmed/18505800>[4]

This paper was among the first ones to show that factors other than smoking or baseline altered lung function were predictors of long term lung function in persons with COPD. We showed that chronic respiratory symptoms were a strong predictors of lung function decline in mild COPD subjects.

Publication indicators:

Web of Science:

103 **Publications in Web of Science**
2,833 **Sum of Times Cited**
30 **H-Index**

As extracted from the dashboard of WoS [Bridevaux, Pierre-Olivier - Web of Science Core Collection](#)

Google scholar:

	Toutes	Depuis 2018
Citations	10912	8110
Indice h	38	31
Indice i10	64	57

As extracted from google scholar.

■ Scientific planning

DEEP LEARNING DIAGNOSTIC AND RISK-STRATIFICATION FOR IPF AND COPD (DEEPBREATH)

DEEP breath is a collaborative project around IA for auscultation. Main co-partners are **Dr Johan Siebert (Unige/HUG)**, **Dr M-A Hartley (EPFL)**. The data collection will start next spring. See summary below.

Aim: To develop and determine the predictive power of an AI (deep learning) algorithm in identifying the acoustic and LUS signatures of IPF, NSIP and COPD in an adult population and discriminating them from age-matched, never smoker, control subjects with normal lung function.

Methodology: A single-center, prospective, population-based case-control study that will be carried out in subjects with IPF, NSIP and COPD. A total of 120 consecutive patients aged ≥ 18 years and meeting IPF, NSIP or COPD international criteria, and 40 age-matched controls, will be recruited in a Swiss pulmonology outpatient clinic with a total of approximately 7000 specialized consultations per year, starting from August 2022.

At inclusion, demographic and clinical data will be collected. Additionally, lung auscultation will be recorded with a digital stethoscope and LUS performed. A deep learning algorithm (DeepBreath) using various deep learning networks with aggregation strategies will be trained on these audio recordings and lung images to derive an automated prediction of diagnostic (i.e., positive vs negative) and risk stratification categories (mild to severe).

Secondary outcomes will be to measure the association of analysed lung sounds with clinical, functional and radiological characteristics of IPF, NSIP and COPD diagnosis. Patients' quality of life will be measured with the standardized dedicated King's Brief Interstitial Lung Disease (K-BILD) and the COPD assessment test (CAT) questionnaires.

Expected results: This study seeks to explore the synergistic value of several point-of-care-tests for the detection and differential diagnosis of ILD and COPD as well as estimate severity to better guide care management in adults

SWISS SEVERE ASTHMA REGISTRY

In close collaboration with **Prof J. Leuppi (KSBL)** we manage the SSAR, which collect data on

patients with severe asthma all over Switzerland since 2020. See below a brief summary of the project.

Asthma is a chronic airway disease, affecting over 300 million people worldwide. 5-10% of patients suffer from severe asthma and account for 50% of the asthma related financial burden. Availability of data about the natural course of severe asthma is insufficient in CH. **The main objective of the SSAR is** to characterize patients with severe asthma in Switzerland and have a follow over the next 10 years.

As for January 2022, 278 patients are enrolled. Socio-demographic variables, comorbidities, diagnostic values, asthma treatment and healthcare utilisation are measured over time. **As of 2022**, 48% of patients are female and the mean age is 55.8 years (range 13-87y). Allergic comorbidities are present in 54.3% of the patients, followed by chronic rhinosinusitis (46.4%) and nasal polyps (34.1%). According to the ACT score, 54.7% have well controlled, 16.2% partly controlled and 25.9% uncontrolled asthma. The most common inhalation therapy was combined ICS/LABA (78.8%). Biologics were administered to 81.7% of patients and 19.1% received oral steroids. The multivariable analysis indicated that treatment with biologics was positively associated with asthma control whereas higher BMI, oral steroids, exacerbations and COPD were negative predictors for the asthma control status.

ASSESSING THE USE AND THE EFFECTIVENESS OF BIOTHERAPIES IN ASTHMA (AUEBIA)

Partners: UNISANTE Lausanne, CH, study sponsor Prof Eric van Ganse, Prof Isabelle Peytremann-Bridevaux; Swiss Health Insurances, PELyon (PharmacoEpidemiology Lyon), France, Dr Manon Belhassen, Service de pneumologie Hôpital du Valais

Asthma is a common disease (> 5% of Western populations), affecting quality of life, and responsible for significant morbidity, and with a large healthcare consumption.

Until recently, little progress had been made in the treatment of asthma since the launch of inhaled corticosteroids (ICS) in the eighties, and these medications are now considered to be the cornerstone of asthma care, usually in combination with long-acting beta-agonists (LABAs), in Fixed Dose Combinations (FDCs).

Despite their effectiveness to control disease at all levels of severity (GINA classification), FDCs are used irregularly by most patients, likely as a result of symptom variations and poor adherence. Irregular use of ICS, assessable at all dimensions of adherence (initiation, implementation, and persistence) facilitates loss of control and is a key “treatable trait” leading to the occurrence of exacerbations. Recurrent exacerbations may in turn lead to overuse of oral corticosteroids (OCS), with serious side effects of this treatment as soon as total annual dose exceeds 1000 mg (possibly 500 mg).

The last few years have seen the launch of new asthma therapies, ie monoclonal antibodies targeting different pro-inflammatory pathways (“biotherapies”) in severe asthma (GINA 4 & 5) with specific inflammatory profiles (“T2-asthma”). Randomized controlled studies have shown the efficacy and safety of biotherapies in selected populations, particularly to reduce -or even suppress- the chronic or regular use of OCS. However, the criteria to select the patients whose asthma will improve under biotherapy (“responders”) are not totally understood, and biotherapies are nowadays initiated on the hand of *declared* clinical and therapeutic information, such as “appropriate adherence to ICS therapy.”

Biotherapies are expensive and intended for chronic use, and the occurrence of significant side effects is not totally excluded in case of long-term use, for instance their induction of eosinopenia. Their initiation should then proceed with care, their effects on outcomes (reduced OCS use, improved control, reduced rates of exacerbations, improved or stabilized lung function: the concept

of “clinical remission”) should be assessed, and the reasons for treatment failure should be explored.

Recent studies illustrate the interest of assessing the joined populations (the patients receiving biotherapies in real-life conditions) in comparison to the target populations (the patients who should receive biotherapies, based on the outcome data from RCTs) and of assessing the respect of the precautions for use (patients should maintain an appropriate use of ICS after initiation of biotherapies). For instance, Bender has recently showed an overall poor level of appropriate adherence to ICS before initiation of biotherapies, and d’Ancona has showed that the adherence to ICS under biotherapies may impact the effectiveness of the biotherapies.

In that context, a study will be conducted on different health care datasets to identify the joined populations of biotherapies at initiation (respect of the criteria for initiation, particularly the level of adherence to ICS), the level of adherence to ICS after initiation, and the relationship between the level of adherence to ICS and the effect of biotherapies on desired outcomes (particularly the weaning of OCS)

The main objective of this work is to study the context of initiation of biotherapies, and to identify determinants of their clinical effectiveness in real-life conditions. For this project, individual longitudinal histories of health care utilisation (HCU) of patients initiated with biotherapies for asthma will be retrieved from health insurance database, to assess their full HCUs, before and after initiation of biotherapies.

A control group of asthmatics without biotherapies will also be identified and matched to the treated patients, based on asthma severity (past use of OCS, past hospital admissions for asthma, N treatment classes), therapy (eg, dosing of ICS), control at baseline (past therapeutic ratios and past use of SABAs), co-morbid conditions, and available socio-demographic variables.

TEMELIMAB AS A DISEASE MODIFYING THERAPY IN PATIENTS WITH NEUROPSYCHIATRIC SYMPTOMS IN POST-COVID 19 OR PASC SYNDROME

This study is a Phase 2, 24-week, randomized, prospective, double-blind, multicenter study in patients experiencing neuropsychiatric symptoms and functional impairment in the course of PASC. The purpose of the study is to evaluate the efficacy and safety of Temelimab as a treatment for PASC neuropsychiatric symptoms in patients who had severe acute respiratory syndrome coronavirus - type 2 (SARS-CoV-2) infection but did not undergo intensive care treatment during the acute period. Patients meeting eligibility criteria will be randomized to Temelimab or placebo in a 1:1 ratio via interactive voice/web response system to obtain 182 protocol completers. The randomization will be stratified by age (≤ 65 years versus > 65 years).

The study has been set up by GENEURO, a Geneva based pharmaceutical company. For the French speaking part of Switzerland, subjects are recruited in the Geneva area (Prof I. Guessous team) and the Valais/Chablais area.

■ Research collaborations

See above for detailed project and partnership.

Dr Johan Siebert (Médecin adjoint, Service de pédiatrie HUG),

Dr M-A Hartley (Machine learning Optimization Lab EPFL, lausanne)

Prof J. Leuppi (Pulmonologist, head of service, Kanton Spital Basel Land)

Prof Eric van Ganse, Prof Isabelle Peytremann-Bridevaux (Health services, UNISANTE, Lausanne)

■ Research funding and grants

CHF 60'000 have been obtained from the Ligue Pulmonaire Valaisanne for the Deep breath project.

■ Research supervision and mentoring

During the last 5 years, I supported and supervised the career of juniors or students in specific projects.

- Dr Leon Genecand, junior pulmonologist and researcher. His work led to the publication of 2 reviews and one original study[1, 5, 6]. Another original study has been submitted for publication in December 2022
- Dr Kirsten Holthof, junior pulmonologist. Her work entitled **Underlying lung disease and exposure to terrestrial moderate and high altitude: personalised risk assessment** has been published in 2022 (BMC pulmonary Med).[7]
- Dr Laura Robotham, junior physician is supported by a grant from the LPVs for conducting the DEEP Breath project
- Ranjan Singh, Medical student at the UNIL (Medicine) has started her Master project entitled **The adoption of the 2022 definition consensus bronchodilator responsiveness (BDR) on the interpretation of BDR in patients undergoing pulmonary function tests (PFT) in real life.**

■ Other scientific activities

Congresses / Speaker activities

During the last five years, I have been invited to give presentations or talks on topics relevant to my main interests. As head of service, I offered opportunities to the physicians and nurses of the service to present their scientific work at international conferences. Special attention is paid to promote women careers. Selected activities from 2022 are listed below:

- European Respiratory Society annual meeting 2022, Barcelona Dysfunctional breathing: symptoms, functional impact and quality of life in patients with long COVID-19., oral presentation, Dr Selina Loew et al.
- European Respiratory Society annual meeting 2022, Barcelona CPET ventilatory characteristics of dysfunctional breathing in long covid patients, oral presentation, Prof P-O Bridevaux et al
- Journées internationales ventilation non invasive, Lyon 2022 Dysfunctional breathing Dr Isabelle Frésard et al
- 20^{ème} Congrès de la SETE (Société d'Éducation Thérapeutique Européenne), Montpellier 2022 Mise en œuvre des actions éducatives en réadaptation pulmonaire, Mrs Marlène Salamin (study nurse and patient education trainer)
- 1^{er} congrès international de pathologie respiratoire, CHU de Souss Massa, Agadir Morocco, 2022. Update 2022 sur la fonction pulmonaire, Prof P-O Bridevaux. Congrès organisé par le Prof Hind Serhane, Faculté de Médecine et de Pharmacie d'Agadir.

Current societies memberships and official function

- FMH, Swiss Respiratory Society (SGP/SSP), European Respiratory Society
- SGP/SSP, Special Interest Group « Functional Diagnostics and Sport Pneumology», President, Note that we merged the Function group and the “obstructive disease group” as for 2023
- SGP/SSP, Special Interest Group « Obstructive Lung Disease & Allergy » Restricted Committee member
- SGP/SSP, Special Interest Group « Interstitial Lung Disease », Restricted Committee member
- SGP/SSP, Commission « Pulmonary Rehabilitation, Patient Education and Palliative Care», Vice president
- Swiss Lung League; COPD Self-Management Expert Group, directory member
- SSP/SGP Scientific Committee, Congress organization
- Academic peer review (last 10 years) - Reviewer:
- Annals of Internal Medicine, Thorax, American Journal of Respiratory and Critical Care, Swiss Medical Weekly, International Journal of COPD, Respiratory Care, Respirology, Environment International, Revue des maladies respiratoires, Plos One, Respiration, European Respiratory Journal, Transplantation, Frontiers in pulmonary Medicine,
- Scientific Project peer review 2022 (reviewer) for the Berner Lung League, and the HESAV (Lausanne)
-

■ Contributions to Open Science

During the last years, most articles for which I contributed as co-author or last author were published in open access journal.

Scientific outreach

Selected outreach activities for the last years are summarized below.

Temps présent (RTS): *Pesticides, à quand la fin du carnage ?* 16 septembre 2021, *Voitures, à quand la fin de l'enfumage ?* 16 janvier 2020

CQFD (RTS) *Pollution atmosphérique et Covid-19*, 13 avril 2020

Tribune de Genève *Genève maintient l'alerte sur la pollution de l'air*, TDG 2 juillet 2019

Le Nouvelliste *Une nouvelle cellule mise en place entre Martigny et Rennaz pour traquer et soigner le Covid long*, 16 mars 2021 ; *Covid long: la consultation pilote de Martigny ne désemplit pas*, 3 décembre 2021 ; *Covid long: à Sion, l'espoir d'un traitement pour les patients touchés par une maladie encore méconnue* 16 décembre 2022

■ Teaching experience

Teaching activities given at the University of Geneva are listed in annexes. I am involved in clinical epidemiology and respiratory medicine.

Beyond the UNIGE, I have been teaching advanced pulmonary function testings (PFT) for the Swiss Lung League since 2013. Courses have been updated every year. As responsible for the PFT program in the French speaking part of Switzerland, I coordinate speakers and tutors from diverse professions (certified pulmonary physicians and trained technical staff). The courses are intended for technicians and junior pulmonologists.

■ Development of teaching tools and activities

I am currently developing and implementing the first Entrustable Professional Activities (EPA) program for residents in pulmonology. The final objective is to develop a national EPA program under the guidance of the SSP/SGP. Prof Mathieu Nendaz will be invited to present the essentials of EPA development and implementation.

■ Teaching perspective

I would have been proud to teach more respiratory medicine to students at the UNIGE. Given the circumstances, I will continue my teaching activity in the “Apprentissages par problème –Unité Respiration” (Dr F. Lador) and in the clinical epidemiology (Prof Angèle Gayet Ageron). I have also accepted to give limited number of lessons to the University of Sfax (Tunisia) on the topic of ILDs. Over the long term, one of my principal objective is to promote independent PFT classes in Kirghistan. I will have a meeting in Bishkek (March 2023) with Dr Soroobaiev to precise the need of the Kirghize pulmonary community .

Curriculum vitae

Management and administration

■ Management skills

I manage a team of 13 physicians and 50 ancillary employees at the Hôpital du Valais and at the Hôpital Riviera Chablais. I do not have any implication in the management of UNIGE employees.

■ Institutional involvement

I have no specific responsibility at the UNIGE

■ Clinical expertise

Pierre-Olivier Bridevaux was trained in pulmonology and clinical epidemiology in Switzerland, USA and Holland. His areas of interest are respiratory physiology, interstitial lung disease (ILDs) and asthma.

In his domains of interest, his expertise is probably recognized in Switzerland. National and international speaker invitation, peer review activity, clinical project supervision, pharmaceutical industries advisory boards might give further evidences of some influence.

1. Fresard I, Genecand L, Altarelli M, Gex G, Vremaroiu P, Vremaroiu-Coman A, Lawi D, Bridevaux PO: **Dysfunctional breathing diagnosed by cardiopulmonary exercise testing in 'long COVID' patients with persistent dyspnoea.** *BMJ Open Respir Res* 2022, **9**.
2. Bridevaux PO, Dupuis-Lozeron E, Schindler C, Keidel D, Gerbase MW, Probst-Hensch NM, Bettschart R, Burdet L, Pons M, Rothe T, et al: **Spirometer Replacement and Serial Lung Function Measurements in Population Studies: Results From the SAPALDIA Study.** *Am J Epidemiol* 2015, **181**:752-761.
3. Bridevaux PO, Probst-Hensch NM, Schindler C, Curjuric I, Felber Dietrich D, Braendli O, Brutsche M, Burdet L, Frey M, Gerbase MW, et al: **Prevalence of airflow obstruction in smokers and never-smokers in Switzerland.** *Eur Respir J* 2010, **36**:1259-1269.
4. Bridevaux PO, Gerbase MW, Probst-Hensch NM, Schindler C, Gaspoz JM, Rochat T: **Long-term decline in lung function, utilisation of care and quality of life in modified GOLD stage 1 COPD.** *Thorax* 2008, **63**:768-774.
5. Genecand L, Bridevaux PO, Garin N, Thonney J, Bonvin-Mullor N, Bouali R, Fresard I: **[Diagnostic and therapeutic management of medium and long-term sequelae of SARS-CoV-2 infection].** *Rev Med Suisse* 2021, **17**:842-849.
6. Genecand L, Bridevaux PO: **[E-Cigarette associated lung injury].** *Rev Med Suisse* 2020, **16**:1511-1517.
7. Holthof K, Bridevaux PO, Fresard I: **Underlying lung disease and exposure to terrestrial moderate and high altitude: personalised risk assessment.** *BMC Pulm Med* 2022, **22**:187.

Publications 2017-2022

Journaux à politique éditoriale

1. Muller I, Mancinetti M, Renner A, Bridevaux PO, Brutsche MH, Clarenbach C, Garzoni C, Lenoir A, Naccini B, Ott S, et al: **Frailty assessment for COVID-19 follow-up: a prospective cohort study.** *BMJ Open Respir Res* 2022, **9**.
2. Holthof K, Bridevaux PO, Fresard I: **Underlying lung disease and exposure to terrestrial moderate and high altitude: personalised risk assessment.** *BMC Pulm Med* 2022, **22**:187.
3. Fresard I, Genecand L, Altarelli M, Gex G, Vremaroiu P, Vremaroiu-Coman A, Lawi D, Bridevaux PO: **Dysfunctional breathing diagnosed by cardiopulmonary exercise testing in 'long COVID' patients with persistent dyspnoea.** *BMJ Open Respir Res* 2022, **9**.
4. Chauffard A, Bridevaux PO, Carballo S, Prendki V, Reny JL, Stirnemann J, Garin N: **Accuracy of a score predicting the presence of an atypical pathogen in hospitalized patients with moderately severe community-acquired pneumonia.** *BMC Infect Dis* 2022, **22**:424.
5. Leuppi JD, Bridevaux PO, Charbonnier F, Clarenbach C, Duchna HW, Gianella P, Jochmann A, Kern L, Meyer F, Pavlov N, et al: **[Novelties in the Treatment of Asthma].** *Praxis (Bern 1994)* 2021, **110**:967-974.
6. Funke-Chambour M, Bridevaux PO, Clarenbach CF, Soccal PM, Nicod LP, von Garnier C, Swiss CLSG, the Swiss Society of P: **Swiss Recommendations for the Follow-Up and Treatment of Pulmonary Long COVID.** *Respiration* 2021, **100**:826-841.
7. Guler SA, Ebner L, Aubry-Beigelman C, Bridevaux PO, Brutsche M, Clarenbach C, Garzoni C, Geiser TK, Lenoir A, Mancinetti M, et al: **Pulmonary function and radiological features 4 months after COVID-19: first results from the national prospective observational Swiss COVID-19 lung study.** *Eur Respir J* 2021, **57**.
8. Urwyler P, Abu Hussein N, Bridevaux PO, Chhajed PN, Geiser T, Grendelmeier P, Joos Zellweger L, Kohler M, Maier S, Miedinger D, et al: **Predictive factors for exacerbation and re-exacerbation in chronic obstructive pulmonary disease: an extension of the Cox model to analyze data from the Swiss COPD cohort.** *Multidiscip Respir Med* 2019, **14**:7.
9. Ellenberger C, Garofano N, Reynaud T, Triponez F, Diaper J, Bridevaux PO, Karenovics W, Licker M: **Patient and procedural features predicting early and mid-term outcome after radical surgery for non-small cell lung cancer.** *J Thorac Dis* 2018, **10**:6020-6029.
10. Dupuis-Lozeron E, Gex G, Pasquina P, Bridevaux PO, Borel JC, Soccal PM, Windisch W, Pepin JL, Janssens JP, Adler D: **Development and validation of a simple tool for the assessment of home noninvasive ventilation: the S(3)-NIV questionnaire.** *Eur Respir J* 2018, **52**.
11. Stolz D, Barandun J, Borer H, Bridevaux PO, Brun P, Brutsche M, Clarenbach C, Eich C, Fiechter R, Frey M, et al: **Diagnosis, Prevention and Treatment of Stable COPD and Acute Exacerbations of COPD: The Swiss Recommendations 2018.** *Respiration* 2018, **96**:382-398.
12. Rothe T, Spagnolo P, Bridevaux PO, Clarenbach C, Eich-Wanger C, Meyer F, Miedinger D, Moller A, Nicod LP, Nicolet-Chatelain G, et al: **Diagnosis and Management of Asthma - The Swiss Guidelines.** *Respiration* 2018, **95**:364-380.
13. Carron T, Bridevaux PO, Lorvall K, Parmentier R, Moix JB, Beytrison V, Pernet R, Rey C, Roberfroid PY, Chhajed PN, et al: **Feasibility, acceptability and effectiveness of integrated care for COPD patients: a mixed methods evaluation of a pilot community-based programme.** *Swiss Med Wkly* 2017, **147**:w14567.
14. Ayala-Bernal D, Probst-Hensch N, Rochat T, Bettschart R, Brandli O, Bridevaux PO, Burdet L, Frey M, Gerbase M, Pons M, et al: **Factors associated with cessation of smoking among Swiss adults between 1991 and 2011: results from the SAPALDIA cohort.** *Swiss Med Wkly* 2017, **147**:w14502.
15. Karenovics W, Licker M, Ellenberger C, Christodoulou M, Diaper J, Bhatia C, Robert J, Bridevaux PO, Triponez F: **Short-term preoperative exercise therapy does not improve long-term outcome after lung cancer surgery: a randomized controlled study.** *Eur J Cardiothorac Surg* 2017, **52**:47-54.
16. Funke-Chambour M, Azzola A, Adler D, Barazzone-Argiroffo C, Benden C, Boehler A, Bridevaux PO, Brutsche M, Clarenbach CF, Hostettler K, et al: **Idiopathic Pulmonary Fibrosis in Switzerland: Diagnosis and Treatment.** *Respiration* 2017, **93**:363-378.

17. Jeong A, Imboden M, Hansen S, Zemp E, Bridevaux PO, Lovison G, Schindler C, Probst-Hensch N: **Heterogeneity of obesity-asthma association disentangled by latent class analysis, the SAPALDIA cohort.** *Respir Med* 2017, **125**:25-32.
18. Licker M, Karenovics W, Diaper J, Fresard I, Triponez F, Ellenberger C, Schorer R, Kayser B, Bridevaux PO: **Short-Term Preoperative High-Intensity Interval Training in Patients Awaiting Lung Cancer Surgery: A Randomized Controlled Trial.** *J Thorac Oncol* 2017, **12**:323-333.

Journaux sans politique éditoriale

1. Savchuk H, Bridevaux PO, Fournier J, Gobin N: **[Amiodarone: some toxicity considerations].** *Rev Med Suisse* 2022, **18**:247-251.
2. Leuppi JD, Bridevaux PO, Charbonnier F, Clarenbach C, Duchna HW, Gianella P, Jochmann A, Kern L, Meyer F, Pavlov N, et al: **[Novelties in the Treatment of Asthma].** *Rev Med Suisse* 2022, **18**:1269-1274.
3. Genecand L, Bridevaux PO, Garin N, Thonney J, Bonvin-Mullor N, Bouali R, Fresard I: **[Diagnostic and therapeutic management of medium and long-term sequelae of SARS-CoV-2 infection].** *Rev Med Suisse* 2021, **17**:842-849.
4. Genecand L, Bridevaux PO: **[E-Cigarette associated lung injury].** *Rev Med Suisse* 2020, **16**:1511-1517.