

# SARAH GEPHINE



## PhD kinesiology

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## EDUCATION & CERTIFICATIONS

- **University of Lille**, France and **University of Laval**, Canada (September 2017 – October 2021)  
PhD in kinesiology
- **University of Lille**, France (September 2015 – June 2017)  
Master in Activité Physique Adaptée et Santé (APAS)
- **University of Caen**, France (June 2015)  
Professional certification: teacher in adapted physical activity
- **FormAction Santé**, Pérenchies, France (December 2019)  
Professional certification: therapeutic education in chronic respiratory diseases

## RESEARCH INTERESTS

- **Chronic obstructive pulmonary disease**
- **Pulmonary rehabilitation**
- **Functional exercise capacity**
- **Physiology and exercise**
- **Frailty syndrome**

## TEACHING EXPERIENCES

- **University of Lille**, teaching assistant (September 2018 – April 2019)  
Physiology of exercise (64h)
- **University of Lille**, teaching assistant (September 2019 – December 2019)  
CPET and cardiorespiratory response, laboratory (20h)
- **University of Laval**, teaching assistant (March 2019 and March 2020)  
Respiratory physiopathology (12h)
- **University of Lille**, ATER contract (September 2021 – August 2022)  
Anatomy, physiology of exercise, cardiorespiratory response (192h)

## PUBLICATIONS

**Gephine S**, Mucci P, Biemann M, Martin M, Bouyer L, Saey D, Maltais F (2021). Quadriceps physiological response during the 1-minute sit-to-stand test in people with severe COPD and healthy controls. Accepted in *Scientific Reports* Oct 2021.

**Gephine S**, Saey D, Grosbois JM, Maltais F, Mucci P (2021). Home-based pulmonary rehabilitation is effective in frail COPD patients with chronic respiratory failure. Accepted in *Chronic Obstructive Pulmonary Diseases: Journal of the COPD Foundation* Oct 2021.

Grosbois JM, **Gephine S**, Le Rouzic O, Chenivesse C (2021). Feasibility, safety and effectiveness of remote pulmonary rehabilitation during COVID-19 pandemic. *Respiratory Medicine and Research*. 80: 100846.

Frykholm E, **Gephine S**, Saey D, van Hees H, Lemson A, Klijn P, de Vaate E, Maltais F, Nyberg A (2021). Isotonic quadriceps endurance is better associated with daily physical activity than quadriceps strength and power in COPD: an international multicentre cross-sectional trial. *Scientific Reports*. 11(1):11557. doi: 10.1038/s41598-021-90758-7.

**Gephine S**, Mucci P, Grosbois JM, Maltais F, Saey D (2021). Physical frailty in people with COPD and chronic respiratory failure. *International Journal of Chronic Obstructive Pulmonary Disease*. 17(16): 1381-1392.

Saey D, Bellocq A, **Gephine S**, Lino A, Reyckler G, Villiot-Danger E (2021). Quels tests physiques pour quels objectifs en réadaptation respiratoire ? *Revue des maladies respiratoires*. 38(6) :646-663.

**Gephine S**, Frykholm E, Nyberg A, Mucci P, Van Hees H, Lemson A, Klijn P, Maltais F, Saey D. (2021). Specific contribution of quadriceps strength, endurance, and power to functional exercise capacity in people with Chronic Obstructive Pulmonary Disease: a multicenter study. *Physical Therapy Journal*. 101(6). doi.10.1093/ptj/pzab052.

**Gephine S**, Le Rouzic O, Machuron F, Wallaert B, Chenivesse C, Saey D, Maltais F, Mucci P, Grosbois JM. (2020). Long-Term Effectiveness of a Home-Based Pulmonary Rehabilitation in Older People with Chronic Obstructive Pulmonary Disease: A Retrospective Study. *International Journal of Chronic Obstructive Pulmonary Disease*. (15): 2505-2514.

Grosbois JM, **Gephine S**, Diot AS, Kyheng M, Machuron F, Terce G, Wallaert B, Chenivesse C, Le Rouzic O. (2020). Gender does not impact the short- or long-term outcomes of home-based pulmonary rehabilitation in patients with COPD. *European Respiratory Journal Open Research*. (6): 00032-2020.

**Gephine S**, Bergeron S, Tremblay Labrecque P.F, Mucci P, Saey D and Maltais F. (2020). Cardiorespiratory Response during the 1-min Sit-to-Stand Test in Chronic Obstructive Pulmonary Disease. *Medicine and Science in Sports and Exercise*. 52(7): 1441-1448.

Frykholm E, **Gephine S**, Saey D, Van Hees H.W, Lemson A, Klijn P, Maltais F, Nyberg A, (2018). Inter-day test-retest reliability and feasibility of isokinetic, isometric and isotonic techniques to measure quadriceps muscle endurance in people with chronic obstructive pulmonary disease: a multicenter study. *Chronic Respiratory Disease*. 16 :1-9.

## CONGRESS COMMUNICATIONS

**Gephine S, Mucci P, Grosbois JM, Maltais F, Saey D (2021).** Physical frailty in COPD patients with chronic respiratory failure. European Respiratory Society Virtual congress 2021.

**Gephine S, Mucci P, Martin M, Saey D, Maltais F (2021).** Oxygenation and electromyographic responses of the quadriceps during the 1-minute sit-to-stand in patients with severe COPD and healthy controls. European Respiratory Society Virtual congress 2021.

**Gephine S, Grosbois JM, Saey D, Maltais F, Mucci P. (2020).** Réadaptation respiratoire à domicile et fragilité physique chez des personnes atteintes de BPCO sévères. 13<sup>ème</sup> Journées Francophones Alvéoles, France.

**Gephine S, Grosbois JM, Saey D, Maltais F, Mucci P. (2020).** Effects of home-based pulmonary rehabilitation on physical frailty in people with COPD and chronic respiratory failure. European Respiratory Society Virtual congress 2020.

**Gephine S, Bergeron S, Mucci P, Saey D, Maltais F. (2019).** Is The 1-Minute Sit To Stand Test a Functional Capacity Test In Patients With Severe Chronic Obstructive Pulmonary Disease? American Thoracic Society congress 2019, Dallas, United States.

**Gephine S, Bergeron S, Mucci P, Saey D, Maltais F. (2019).** Évaluation des capacités fonctionnelles dans la BPCO : le test de lever de chaise d'une minute un exercice maximal ? 23<sup>ème</sup> Congrès de pneumologie de langue française, France.

**Gephine S, Frykholm E, Nyberg A, Maltais F, Saey D. (2018).** Reproductibilité test-retest et faisabilité clinique de l'évaluation de la fonction musculaire du quadriceps chez des patients atteints de BPCO. 12<sup>ème</sup> Journées Francophones Alvéole, France.

**Gephine S, Frykholm E, Saey D, Nyberg A, Maltais F. (2018).** Relationship between functional capacity and muscle function in people with COPD. European Respiratory Society congress, 2018, Paris.

## FOUNDINGS AND REWARDS

• **First author publication reward** *(March 2021)*  
Medicine department, Laval University, Canada – 1 100 dollars

• **Doctoral salary** *(May 2020 – December 2021)*  
Fonds de Recherche du Québec - Santé (FRQS), Canada – 35 000 dollars

• **Doctoral salary** *(September 2017 – June 2020)*  
École Doctorale Biologie Santé, University of Lille, France – 52 000 euros

• **Mobility grant** *(May 2018 – December 2020)*  
Fonds France Canada pour la recherche – 11 200 dollars

• **Mobility grant** *(September 2019- December 2020)*  
MOBILLEX, University of Lille – 10 500 dollars

• **Mobility grant**

*(January 2017- December 2018)*

MOBLILEX, University of Lille – 6 000 dollars

• **Mobility grant (congress)**

*(May 2018)*

Groupe de recherche en santé respiratoire, IUCPQ, Québec, Canada – 1 000 dollars

• **Abstract Scholarship**

*(May 2019)*

International congress of the American Thoracic Society, Dallas – 580 dollars