

ATS Spotlight 2022: Pulmonary Rehabilitation Assembly Early Career Professionals



Jana De Brandt, PhD in Rehabilitation Sciences

Post-doctoral researcher

*Community Medicine and Rehabilitation, Physiotherapy
Umeå University, Sweden*

Tell us about yourself.

Passionate and physically active rehabilitation scientist / team player / foodie / sports and nature lover / happy place = mountains.

Is your research clinical, basic science, or translational?

Difficult to put our research in a specific box, but I guess “translational” suits. We perform mechanistic work where we use basic science techniques but we also investigate clinical measures and interventions with the ultimate goal to change clinical practice by optimizing the exercise training component of PR.

Tell us about your research.

My PhD research focussed on counteracting lower-limb muscle dysfunction in patients with COPD, where we reviewed the effects of exercise training and performed a RCT on the effects of an ergogenic nutritional supplement (beta-alanine). Currently in my post-doc, we are investigating the effects of supramaximal exercise training on muscle, cardiovascular and brain health in patients with COPD.

Where do you see yourself in 5 years?

Probably still doing research regarding exercise training in patients with chronic diseases somewhere across the world 😊. The 50% research / 50% practice is my ambition though as I love to work with the patients.

How has the Pulmonary Rehabilitation Assembly contributed to your career?

Mainly through education and keeping track of literature. I try to follow the PR-webinars as much as I can and I love the dedicated resource webpage of the PR assembly. I recently became an ATS member, so I guess more avenues to explore in the future!

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PhD research

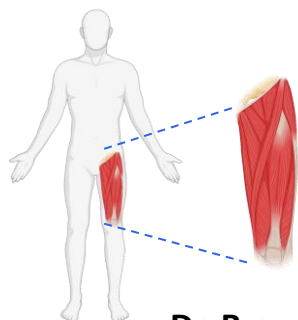
Counteracting lower-limb muscle dysfunction in patients with COPD



1



exercise training

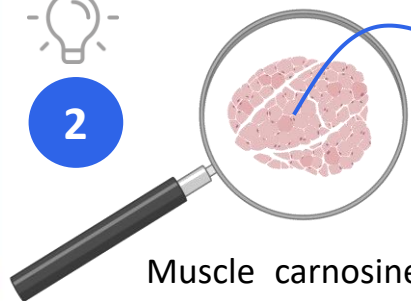


cellular/molecular
structural/metabolic
functional

De Brandt *et al.* (2016 & 2018)

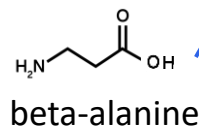
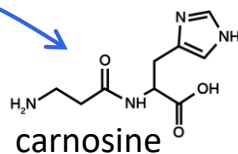


2



Muscle carnosine ↓ in patients
with GOLD-stage III & IV vs. I & II

De Brandt *et al.* (2021)



- Beta-alanine supplementation ↑ muscle carnosine
- No + effects on oxidative stress, muscle function and exercise capacity

De Brandt *et al.* (submitted)



Proud contributor

Standardization of cardiopulmonary exercise testing in chronic lung disease
– Radtke *et al.* (2019)



Monograph Pulmonary Rehabilitation: Exercise prescription in pulmonary rehabilitation – Hill & De Brandt (2021)



JanaDeBrandt



jana.de.brandt@umu.se

