



Luc Souilla

POST-DOCTORAL FELLOW

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About me

I am an interdisciplinary researcher driven by the main question: How will global warming shape human health across the lifespan? During my PhD, I developed strong expertise in the physiology and physical activity of child and adolescent health in clinical settings. Driven by a keen interest in climate change and strengthened through international collaborations, I began exploring the intersection of global warming and paediatric health, further deepening my focus on human adaptation to heat. I held a postdoctoral fellowship to investigate the physiological and behavioural responses to heat exposure. I intend to integrate my expertise in child health and environmental physiology to acquire novel methodologies aimed at understanding and mitigating the impact of heat on children's health at individual level with lab-based studies and population level using cohort-based studies.

Current position

Post-doctoral position

MONTRÉAL HEART INSTITUTE - UNIVERSITY OF MONTRÉAL

Montreal, Canada

Nov. 2024

- Physiological and perceptual responses to heat exposure
- Human Integrative Physiology Laboratory (Pr. Daniel Gagnon)

Education

PhD Fellow and Associate Lecturer

SPORT SCIENCE FACULTY

Montpellier, France

Oct. 2021 - Sept. 2024

- Evaluation and optimisation of physical fitness and physical activity in children with inherited cardiac diseases
- Supervised by Pr. Pascal Amedro, Pr.Jean-Luc Pasquie, Pr.Denis Mottet

MSc degree in Sport Sciences and Exercise

SPORT SCIENCE FACULTY

Montpellier, France

Sep. 2020 - July. 2021

BSc in Sport Sciences - Exercise and Health

SPORT SCIENCE FACULTY

Toulouse and Montpellier, France

Sep. 2018 - July. 2019

- Exercise and chronic conditions, top of the class.

Selected Publications

I have published 13 papers in peer-reviewed journal, 6th as first author, with a total of 135 citations.

- Vanos, J.K., Guardaro, M., Middel, A., Ravanelli, N., [...], **Souilla, L.**, [...], Ouazaa Y., Gagnon D. *Hot Topics: Building Capacity for Extreme Heat Adaptation Through Transdisciplinary Training*. Bull. Amer. Meteor. Soc., [link here](#)
- Dahhak, A., Pamart, N., [...] **Souilla, L.**, Deshayes, T. (2025). *Fight Fire with Fire: Is Heating Rather than Cooling the Key to Muscle Recovery?*, The Journal of Physiology. [link here](#)
- Dahhak, A., Pamart, N., [...] **Souilla, L.**, Deshayes, T. (2025). *Fight Fire with Fire: Is Heating Rather than Cooling the Key to Muscle Recovery?*, The Journal of Physiology. [link here](#)
- **Souilla, L.**, Shaheen, A., Nasser Mostafa, A., Abuzerr, S. (2025). *The Escalating Health Crisis in Gaza Amidst Armed Conflict and Heatwaves*, Global Health Action. [link here](#).
- **Souilla, L.**, Werner, O., Huguet, H., [...], Amedro, P., (2025). *Cardiopulmonary Fitness and Physical Activity Among Children and Adolescents With Inherited Cardiac Disease*, JAMA Open. [link here](#).
- **Souilla, L.**, Guillaumont, S., Auer, A., [...], Amedro, P., (2024). *Cardiac rehabilitation in children and adolescents with long QT syndrome: the RYTHMO'FIT pilot study*, BMC Sports Sci, Med and Rehab. [link here](#).
- **Souilla, L.**, Amedro, P., Morrison, S., (2024). *Children with cardiac disease and heat exposure: catastrophic converging consequences?*, Pediatric Exercise Science. [link here](#).

- **Souilla, L.**, Larsen, A.C., Juhl, C., Skou, S.T., Bricca, A., (2024). *Childhood and adolescence physical activity and multimorbidity later in life: A systematic review*, Journal of Multimorbidity and Comorbidity. [link here](#).
- **Souilla, L.**, Avesani, M., [...], Pasquie, J-L., Guillaumont, S., and Amedro, P., (2023). *Cardiorespiratory fitness, muscle fitness, and physical activity in children with long QT syndrome: A prospective controlled study*, Front. Cardiovasc. Med. [link here](#).
- Amedro, P., Gavotto, A., Huguet, H., **Souilla, L.**, [...], Guillaumont, S. (2024). *Early hybrid cardiac rehabilitation in congenital heart disease: the QUALIRE-HAB multicentre randomized controlled trial*, European Heart Journal. [link here](#).
- Amedro, P., Matecki, S., [...], **Souilla, L.**, [...], Gavotto, A. (2023). *Reference Values of Cardiopulmonary Exercise Test Parameters in the Contemporary Paediatric Population*, Sports Medicine. [link here](#).
- Gavotto, A., Mura, T., [...], **Souilla, L.**, [...], Amedro, P. (2023). *Reference values of aerobic fitness in the contemporary paediatric population*, European Journal of Preventive Cardiology. [link here](#).
- Amedro, P., Werner, O., [...], **Souilla, L.**, [...], Pasquie, J-L. (2021). *Health-related quality of life and physical activity in children with inherited cardiac arrhythmia or inherited cardiomyopathy: the prospective multicentre controlled QUALIMYORHYTHM study rationale, design and methods*, Health Qual Life Outcomes. [link here](#).

Professional Experiences

Workshop facilitator

ELEMENTARY AND HIGH SCHOOL

Montréal, Canada

March. 2025

Project manager

UNIVERSITY OF SPORT SCIENCE

Montpellier, France

- Kickoff event on Sports and Climate Change
- Organizing an awareness day on climate change and the impact of sports for students

Sept. 2023 - January. 2024

Research Mobility

SOUTHERN DENMARK UNIVERSITY - DEPARTMENT OF SPORT SCIENCES AND CLINICAL BIOMECHANICS

Odense, Denmark

May. 2023 - July. 2023

- ERC projet MOBILIZE
- Effect of tailored exercise program on multimorbidity / Systematic review on physical activity, childhood and multimorbidity

Research intern

PHYMEDEXP - INSERM U1046

Montpellier, France

Sep. 2020 - July. 2021

- Supervised by Pascal Amedro
- Cardiorespiratory Fitness and Muscular Deconditioning in congenital Long QT syndrome children

\$ Competitive Grants

I have been involved in successful research proposals, securing €10,000 as the principal investigator and €1,117,100 as a collaborator.

Climate Fresk Welcome Day: Orientation Day on climate awareness for students of the exercise science department

September 2023

EXCELLENCE PROGRAM I-SITE FROM UNIVERSITY OF MONTPELLIER

€17,100

- Contributed to the conception and design of workshops and activities for the event (co-applicant)

RYTHMO'FIT: Interventional pilot study

FROM SAINT PIERRE FOUNDATION

July 2022

€10,000

- Designing exercise rehabilitation program for children with long QT syndrome (Principal investigator)

QUALIREHAB-ONCO: Effect of home based exercise rehabilitation program on childhood cancer survivors

June 2021

FROM ARC: FOUNDATION FOR CANCER RESEARCH

€450,000

- Help to design and draft the intervention, final proofreading (co-applicant)

QUALINEUROREHAB: Neuro-cardiac Rehabilitation in Youth With Congenital Heart Disease

2021

EUROPEAN JOINT PROGRAMME ON RARE DISEASES

€650,000

- Help to design and draft the intervention, final proofreading (co-applicant)

Fellowship & Awards

My research has been supported by over €118,490 in fellowships and awards.

PhD Scholarship

FROM UNIVERSITY OF MONTPELLIER

- PhD fellowship awarded through a competitive doctoral entrance exam for three-years support

Oct.2021-2024

110 000€

International mobility EXPLORE #4

EXCELLENCE PROGRAM I-SITE FROM UNIVERSITY OF MONTPELLIER

- PhD mobility to Southern Danemark University under supervision of Prof. Søren T. Skou, working on ERC grant funded project: MOBILIZE

May-June 2023

7990€

Call for support for national or international mobility

FROM UNIVERSITY OF MONTPELLIER

- Support for participation in the International Congress of Association for European Paediatric Congenital Cardiology in Geneva, Switzerland

May 2021

500€

Media & Outreach

I have been involved in several media and outreach activities, including interviews, video creation, and public talks, to disseminate my research findings.

CBC/Radio Canada

Montreal, Canada

EXPERIMENTAL EXPOSURE TO EXTREME HEAT BY A JOURNALIST [WATCH VIDEO 

2025

Cardiogen

Montpellier, France

CO-CREATED PUBLIC OUTREACH VIDEO ON EXERCISE REHABILITATION BENEFITS FOR CHILDREN WITH CARDIAC DISEASES

[WATCH VIDEO 

2025

Teaching Experience

I have accumulated 132 hours of teaching involving course design and teaching using active learning strategies, creating workshops and quizzes to engage students.

Courses	Level	Hours	Contribution
Exercise physiology and Cardiovascular Impairments	BSc	50h	Delivered with provided material
Anatomy of Human Movement	BSc	26h	Delivered with provided material
Climate change and challenges for physical activity and sports	MSc	16h	Created course content
Neuroscience of Motor Performance	BSc	16h	Delivered with provided material
Adaptations to Exercise and Health	BSc	16h	Delivered with provided material
Research Methodology	MSc	8h	Delivered with provided material
Exercise programs for children with inherited cardiac diseases	BSc	4h	Created course content

Supervision

Mentoring MSc Student

Bordeaux, France

SPORTS SCIENCE UNIVERSITY

Oct. 2023-Oct. 2024

- Trained to cardiopulmonary exercise testing and accelerometry and designing research protocols
- Help designing research protocol and writing dissertation and call for funding

Mentoring BSc Student

Montpellier, France

SPORTS SCIENCE UNIVERSITY

Oct. 2023-Dec. 2023

- Mentoring student on the kickoff event on Sports and Climate Change
- Individual support for developing their personal projects

Mentoring MSc Student

Bordeaux, France

UNIVERSITY HOSPITAL OF PEDIATRIC CARDIOLOGY

January 2023

- Help designing exercise interventions and writing dissertation and call for funding

Conferences & Presentations

Global Health Symposium: Extreme heat and health

Copenhagen, Danemark

ORAL PRESENTATION

December, 2025

- Souilla L. (2025). In-situ responses of older adults living in social housing before, during and after a heatwave

Global School on Heat Adaptation ♂

Montréal, Canada

SESSION ANIMATOR

- Souilla L. (2025). Demonstration and implementation of HeatSuite to monitor physiological and perceptual responses to heat

July 2025

Seminars of the EPIC Center

Montréal, Canada

ORAL PRESENTATION

- Souilla L. (2025). Deriving indoor heat-health relationships from remote physiological and behavioural monitoring of older adults living in social housing

September 2025

International Congress of Association for European Paediatric Congenital Cardiology

Porto, Portugal

ORAL PRESENTATION

- Souilla L., Guillaumont S., ..., Amedro P. (2024). Cardiac rehabilitation in children and adolescents with long QT syndrome: the RYTHMO'FIT pilot study. International Congress of Association for European Paediatric Congenital Cardiology

May 2024

French federation of Cardiology

Paris, France

ORAL PRESENTATION

- Souilla L., Werner O., ..., Amedro P. (2023). Health-related quality of life and physical activity in children with inherited cardiac arrhythmia or inherited cardiomyopathy: the prospective multicentre controlled QUALIMYORYTHM. Research days of French federation of cardiology

Sep. 2023

International Congress of Francophone Mother-Children network

Bordeaux, France

ORAL PRESENTATION

- Souilla L. (2022). Adapted physical activity teacher: on the right track. International Congress of Francophone Mother-Children network

June 2022

French society of Paediatric

Lille, France

ORAL PRESENTATION

- Souilla L., Avesani M., Boisson A., Pasquie JL., Amedro P. (2022). Cardiorespiratory fitness and muscular deconditioning children with Long QT syndrome. French society of Paediatric

June 2022

International Congress of Association for European Paediatric Congenital Cardiology

Geneve, Switzerland

POSTER PRESENTATION

May 2022

- Souilla L., Avesani M., Boisson A., Pasquie JL., Amedro P. (2022). Cardiorespiratory fitness and muscular deconditioning children with Long QT syndrome. International Congress of Association for European Paediatric Congenital Cardiology

Projects

💻 PROGRAMMING PROJECTS

Core Temp App ♂	Analyze, plot and extract data from Body Cap pills used to measure body core temperature	
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CPET COSMED ♂	Upload, analyze, plot result from COSMED cardiopulmonary exercise test and generate an individualized report	
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💡 Skills

人群 SOFT SKILLS

Teamwork

Interdisciplinary Working – Effective communication –
Autonomous writing – Management of national
clinicals trials – Pedagogy with youth

Attributs

Creativity – Adaptability – Time management –
Motivation – Relationship skills

⚙️ TECHNICAL SKILLS

Tools

CP Exercise testing –
Echocardiography – Muscular
ultrasound – Accelerometer –
Force Sensor

Languages

French (native) – English (C1) –
Spanish (B1)

Other

Github – Markdown – RStudio –
Quarto – Shiny – Obsidian –
Canva – BioRender

人群 Memberships

Oct. 2025-Nov. 2026	Creation and coordination of social and scientific club of the lab	<i>Daniel Gagnon Lab</i>
Oct. 2024-Oct. 2025	Scientific member of the international Global Center for Heat Adaptation 	<i>Montreal Heart Institute</i>
Aug. 2023-Jan. 2025	Head of Green Researchers team working on evaluation and mitigation of the laboratory carbon footprint	<i>Lab Euromov DHM</i>
Jan. 2023-Dec. 2023	Head of Pediatric committee of the French Society of Exercise Physiologists	<i>French Society of Exercise Physiologists</i>
Since 2022	Scientific member of QUALINEURO-REHAB European project	<i>Bordeaux University Hospital - INSERM</i>