

Healthy Urban Microbiome Initiative

Pathway to a Climate-Resilient Future

Interconnected Global Challenges

The Healthy Urban Microbiome Initiative (HUMI) addresses interconnected global challenges. We are focusing on the role environmental microbiomes are now known to play in the causal pathway between biodiversity loss and the rise in immune-system related disease in humans that diminishes urban population health. These global challenges are made more urgent by drivers of change: environmental degradation, climate change and population driven urbanisation.

Goal

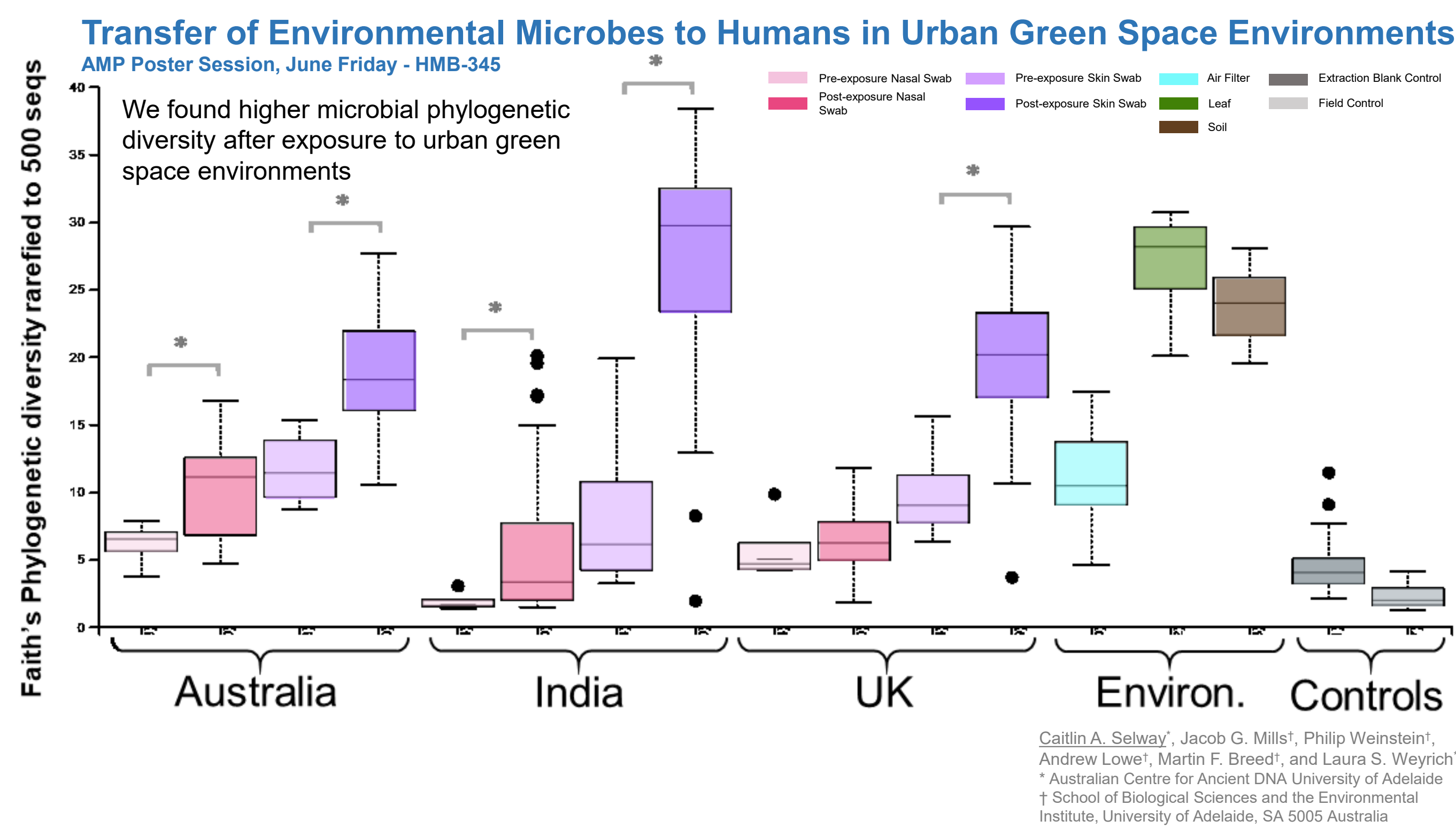
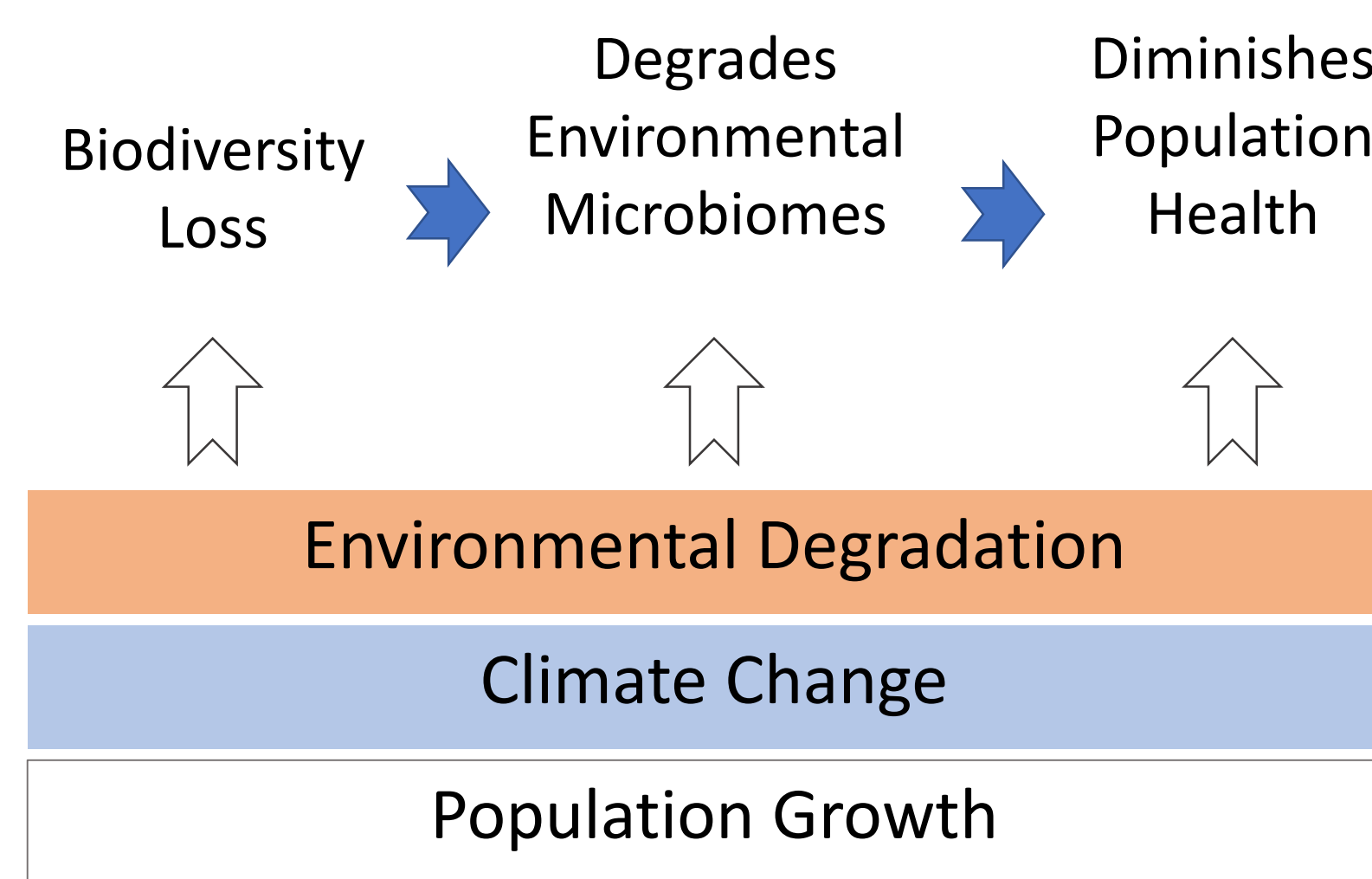
To integrate recent developments in microbiome science into a population health approach that delivers sustainable and biodiverse urban green space for health improvement.

Objectives

1. To identify and measure local biodiversity and associated environmental microbiomes in local urban green spaces with civic and community participation (Research & Health service-led)
2. To design and restore (or create) biodiverse urban green spaces (BUGS) that improve population health and create innovative educational and employment opportunities (Community-led)
3. To foster and evolve local best practice implementation of BUGS that maximises population health improvement and associated educational and employment opportunities (Civic-led)

HUMI 2020 CHALLENGE

Our challenge for "Global Biodiversity for Health": 20 cities in 20 countries developing HUMI Partnership Projects before the 2020 COP15 in China



HUMI addresses UN SDGs

Improving the health of urban populations through the restoration of biodiverse environments supports many sustainable development goals:

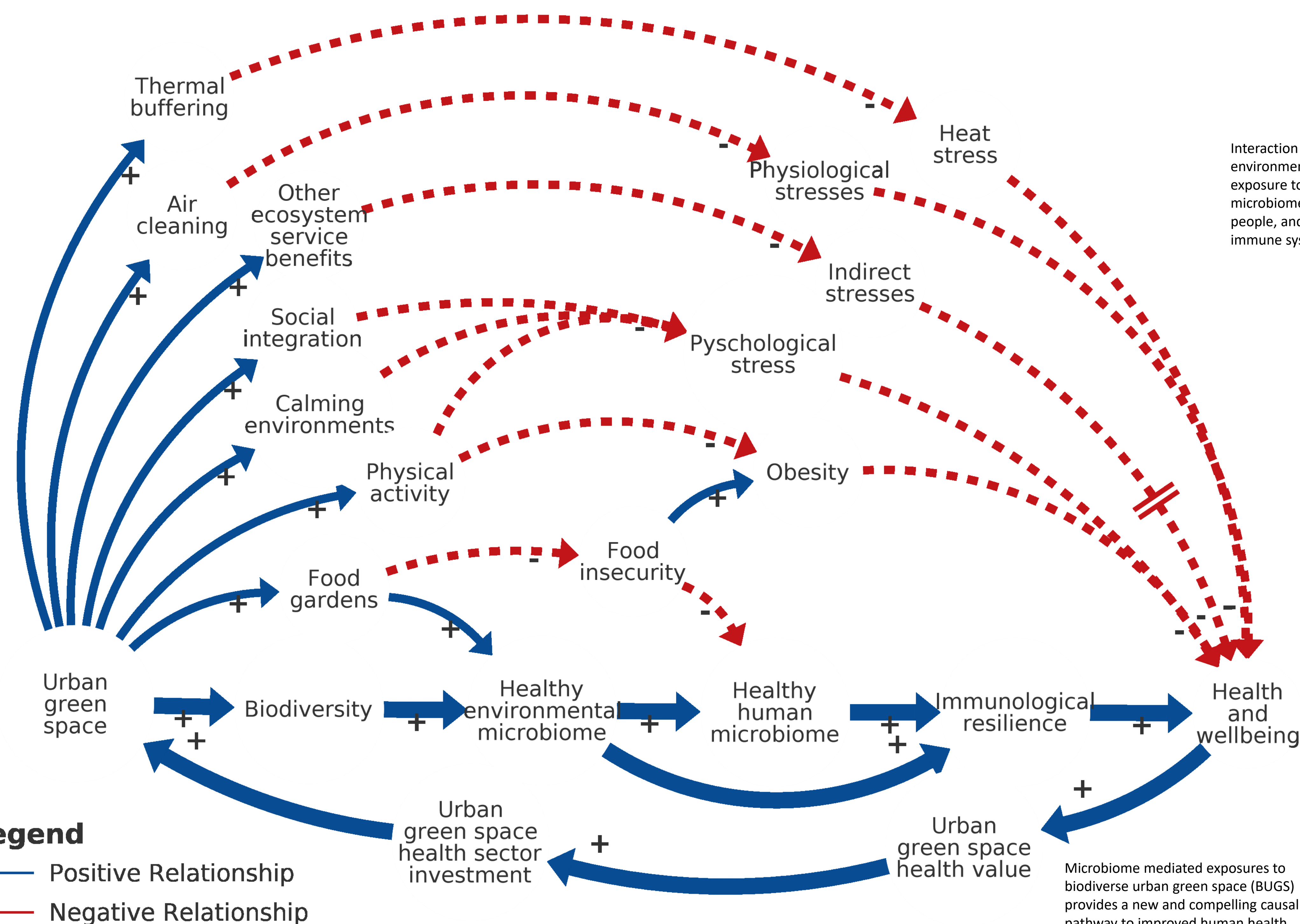
- 3 – Good health and wellbeing
- 10 – Reduced inequalities
- 11 – Sustainable cities and communities
- 13 – Climate action
- 15 – Life on land
- 17 – Partnerships for the goals

Call to Action

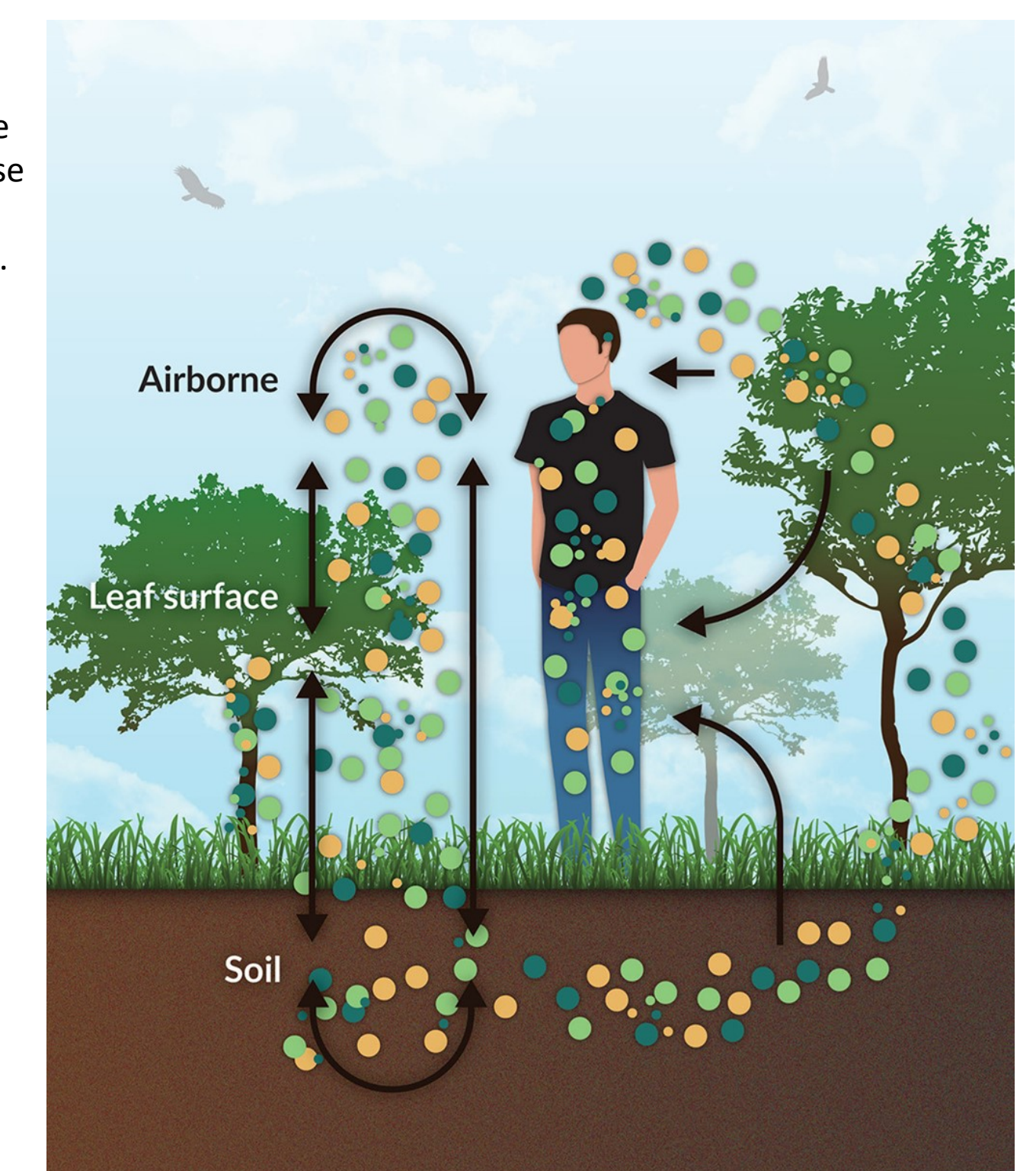
Since 2007, the majority of the world's population live in cities. Developed nations are the most urban, while developing nations are the most rapidly urbanising. Humans are losing contact with biodiversity and the natural world. At the same time, immune related health disorders such as allergies, auto-immune and chronic inflammatory diseases are multiplying. Medical researchers now believe these important trends are linked. HUMI hopes to be a movement to create, share and transfer knowledge of microbiome science, biodiversity and urban green space design for public health improvement – we welcome new participants.

Get involved

Develop your own place-based biodiverse urban green space interventions and join HUMI to evaluate our collective progress. The Healthy Urban Microbiome Initiative (HUMI) is modelled on a place-based population health approach and is science-led, community-focused and enabled by civic-leadership. We are scientists, local government and public health professionals working in partnership with community-led groups to improve the health of our populations and environment, concurrently.



Interaction with natural environments creates exposure to more diverse microbiomes that colonise people, and stimulate immune system function.



SCBD-HUMI Partnership

The Secretariat for the Convention on Biological Diversity and the Healthy Urban Microbiome Initiative have partnered to improve population health through the restoration and creation of biodiverse urban green space around the global.

Biodiverse green spaces: a prescription for global urban health, *Frontiers in Ecology and the Environment*, Emily J Flies, Chris Skelly, Sagri Singh Negi, Poornima Prabhakaran, Qiyong Liu, Keke Liu, Fiona C Goldizen, Chris Lease, Philip Weinstein, 12 October 2017. <https://doi.org/10.1002/fee.1630>

Cities, biodiversity, and health: We need healthy urban microbiome initiatives, *Cities and Health*, Flies, E.J., Skelly, C., Lovell, R., Breed, M.F., Phillips, D. and Weinstein, P. 29 November 2018. <https://doi.org/10.1080/23748834.2018.1546641>

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