



Professor Mohamed Jeebhay

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Professor Mohamed Jeebhay, head of Occupational Medicine in the School of Public Health and previously co-director of the WHO Collaborating Centre in occupational health (2010–14), is one of few leading occupational medicine academics in Africa known internationally for his scholarship on allergies and asthma in the workplace. In 2021, he was awarded the FCPHM (Occ Med) by peer review from the Colleges of Medicine of South Africa in recognition of his academic contributions.

During his training as an occupational medicine physician, clinician scientist and epidemiologist in the mid-1990s, Professor Jeebhay became interested in occupational allergies and its impact on the working life of workers in southern Africa. He was subsequently honoured through the American Public Health Association (APHA) International Award in Occupational Health and Safety. A decade later he was elected fellow of the Collegium Ramazzini – an international body that examines critical issues in occupational and environmental medicine towards action to prevent disease and promote health. Today, Prof Jeebhay is an established research scientist who enjoys considerable international recognition for the quality, focus and impact of his work. His unique multi- and interdisciplinary approaches through international partnerships that combine epidemiology, immunology, molecular-biological and clinical medicine, as well as knowledge transfer to community stakeholders has advanced the management and prevention of allergic airway disease and its impact on the working and general population.

Jeebhay has made important and original scientific contributions spanning more than two decades that have informed our scientific understanding, international policies and practice in both occupational and environmental medicine. He has studied the relationship between airborne food allergens, allergy and asthma with specific reference to identifying occupational risk factors and dose-response relationships for allergic airways disease. He has used novel exposure assessment techniques and early inflammatory detection markers to develop effective workplace interventions to reduce the incidence of occupational allergy and asthma in various workplace contexts, with major focus on seafood and flour dust allergens aerosolised during various stages of production – from the farm to the fork.

Jeebhay led an international taskforce of the European Academy of Allergy and Clinical Immunology (EAACI) on Food and Occupational Respiratory Allergy (FORA), which proposed a revised classification of food allergy, recognising a new category of inhalant food allergy (Class 3 Food Allergy), commonly observed in occupational settings. The taskforce findings also had major relevance for inhalant food allergy experienced by children. He was also a member of an international team that conducted the first scoping review on of global aquaculture-related activities and its impact on occupational health and safety commissioned by the UN Food and Agriculture Organisation (FAO). This report informed the new FAO Code of Conduct policy for Responsible

Fisheries to ensure sustainability of marine resources as well as safety at sea and decent work in fisheries and aquaculture – two important SDG goals.

In advancing environmental health, Jeebhay's research highlighted the role of damp conditions and mould growth as major risk factors for asthma in children residing in informal settlements. It provided further scientific evidence for policies aimed at improving housing design to protect respiratory health in children. Furthermore, it also pointed to the inadequacy of previous nitrogen dioxide exposure standards and underscored the relevance of the revised 2021 WHO global air quality guidelines to protect vulnerable populations in our region. These findings also called for climate change mitigation strategies to reduce asthma burden in high-risk communities globally. Recently, he was a member of an international panel on environmental science guidelines that gathered the evidence for major global environmental risk factors of pollen, mould, smoking, indoor and outdoor air pollutants causing asthma.

The high quality and relevance of Jeebhay's work is affirmed by several indices – he has published well over 100 publications in high impact international journals, Scopus h-index of 30, and an NRF B rating (attesting to his national and international expertise).

To summarise, Professor Mohamed Jeebhay's research deals with innovative areas of growing contemporary relevance covering pollution, seafood allergy, as well as bioaerosols, allergy and inflammatory markers. His research has pioneered the development of policies and practices addressing the growing burden of occupational and environmental allergy and asthma caused by food processing and climate change in our workplaces and the community at large.

Nominator: Professor Landon Myer

Publications

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2. Baatjies R, Lopata AL, Sander I, Raulf-Heimsoth M, Bateman E, Meijster T, Heederik D, Robins TG, Jeebhay MF. Determinants of asthma phenotypes among supermarket bakery workers. *European Respiratory Journal*, 34(4):825–833, 2009 (citations: Scopus=50, G/Scholar=74) (IF: 24.9)
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4. Jeebhay MF, Robins TG, Lehrer SB, Lopata AL. Occupational Seafood Allergy – A Review. *Occupational and Environmental Medicine*, 58(9), 553–62, 2001 (citations: Scopus=228, G/Scholar=349) (IF: 4.9)

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8. Olaniyan T, Dalvie MA, Roosli M, Naidoo RN, Künzli N, de Hoogh K, Parker B, Leaner J, Jeebhay MF. Asthma-related outcomes associated with indoor air pollutants of school children residing in informal settlement households of the Western Cape province of South Africa. *J Indoor Air*, 2019; 29:89–100. doi: 10.1111/ina.12511 (citations: Scopus=24, G/Scholar=30) (IF: 5.8)
9. Olaniyan T, Jeebhay MF, Roosli M, Naidoo RN, Künzli N, de Hoogh K, Saucy A, Badpa M, Baatjies R, Parker B, Leaner J, Dalvie MA. The association between ambient NO₂ and PM_{2.5} with the respiratory health of school children residing in informal settlements: a prospective cohort study. *Environmental Research*, 2020. Doi 10.1016/j.envres.2020.109606 (citations: Scopus=22, G/Scholar=26) (IF: 8.3)
10. Olaniyan T, Dalvie MA, Roosli M, Naidoo RN, Künzli N, de Hoogh K, Berman D, Parker B, Leaner J, Jeebhay MF. Short term seasonal effects of airborne fungal spores on lung function in a panel study of schoolchildren residing in informal settlements of the Western Cape of South Africa. *Environmental Pollution*, 2020 Jan 27;260:114023. doi: 10.1016/j.envpol.2020.114023 (citations: Scopus=9, G/Scholar=12) (IF: 8.9)