第604回川崎医学会講演会

日時：令和8年12月3日（木）15:00～16:00　場所：図書館小講堂 座長：猪原 登志子

「Computational approaches to personalised medicine for atopic dermatitis」

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Personalised medicine holds great promise for improving treatment outcomes in complex, chronic diseases like eczema. But realizing this potential requires a deep understanding of the complex biological mechanisms involved. In this seminar, I will present our recent work integrating mathematical modelling with machine learning and AI to design patient-specific treatment strategies for allergic diseases.

Our group has developed a mathematical model of eczema pathogenesis that captures the dynamic interplay between skin barrier integrity, immune responses, and environmental stressors, a triangle of interactions interlinked through intricate positive and negative feedback loops. This model not only explains the onset and progression of eczema but also reveals potential routes for prevention and intervention. Expanding further, we have incorporated the role of the skin microbiome, a key player in eczema pathophysiology, into our computational framework. These in silico models complement experimental approaches and offer a systems-level insights into host-microbe dynamics, helping to identify new therapeutic targets.

I will also highlight current limitations and open challenges in applying computational approaches to allergic diseases, and explore future directions in advancing clinically actionable, personalized medicine for allergic diseases.

※総合医療センターにてTV会議システムを介して参加をご希望される方は 11月26日（木）までに医学会講演会HPの予約フォームよりご予約ください。
※大学院生で講義として受講する場合は必ず教務課（大学院）へ問い合わせてください。

お問い合わせ先：川崎医学会講演会担当内線：26033《皆様のご来聴をお待ちしております》