AI4Leprosy

The Foundation is working with partners to use the world’s latest technologies to speed-up elimination of one of the oldest diseases.

Over 200,000 new patients are diagnosed with leprosy annually, and earlier detection followed by prompt treatment are essential to halt transmission and prevent neurological damage that causes irreversible disabilities.

The Novartis Foundation is collaborating with Microsoft AI4Health and the Oswaldo Cruz Foundation (Fiocruz) in Brazil on the AI4Leprosy initiative, which aims to develop a screening assistance tool to accelerate leprosy diagnosis. The group collected, examined and processed anonymized skin lesion images and symptoms from leprosy patients in Brazil. These data trained an AI model to assess the probability of leprosy. The protocol and results of the first model will be published in 2021 and the AI model will be available open source for researchers to use.

Skin images and data from India are being added to the data sets to further strengthen the algorithm, and the University of Basel led the development of a global protocol to enable further image and data collection from other geographies. Besides minimizing racial bias, data from different geographies are important to help further improve the algorithm.

AI4Leprosy has the potential to significantly accelerate leprosy diagnosis and address part of the stigma related to the disease, which often prevents people from seeking timely healthcare.

Additional resources

- Read: AI-powered diagnostic tool to aid in the early detection of leprosy
- Watch: Novartis and the Novartis Foundation up the game to reimagine leprosy elimination
- Watch: Novartis Foundation and AI for Health

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