

UGM Students Win 3 International Awards for Health Tools for Children with Asthma

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Students of Universitas Gadjah Mada (UGM) have brought home 3 international awards from *Thailand Inventors Day* that lasted from 2-6 February in Bangkok, Thailand.

The awards include: Gold Medal in the category of Medicine and Public Health, *The Best International Invention and Innovation of Social and Quality of Life Award* from National Research Council of Thailand, and *The Best Innovation* from India Innovation Association.

The UGM team have been successful in developing health equipment using iontophoretic method for children with asthma. Named as Asthlon, the tool is developed by Kadek Hendra Darmawan, Abdillah Faisal Nur Fajar, Aron Bagas Dewantoro, Christian Felix Napitupulu, and M. Abdurachman Fairuz.

Thailand Inventors Days is an event hosted by Thailand Higher Learning Research Ministry in cooperation with World Inventors and Promotion Association (WIPA). This is a forum for inventors from around the world to share information and present innovation. As many as 500 participants joined the event from Europe, America, Africa, and Asia.

Iontophoresis Medication Innovation

Asthlon team developers, Kadek, said the prototype was made as alternative to asthma medication and complete the shortcomings in conventional oral medication through pills, tablet, and injection.

The students developed iontophoresis method application which is the latest way in drug intake by delivering the drug onto the skin using low electric current.

“We focus the innovation on Morning Dip case that often happens in asthma in children,” he said on Monday (11/2).

Kadek hoped with the tool, the level of compliance of the children doing the treatment would improve to ensure the success of the therapy.

A mobile application was also developed to support the success of the therapy. The app is used to control and link the patient with doctors to make monitoring easier. The tool is applied by transdermal or locate the tool on the body of the patient. To monitor the therapy can be done using the mobile apps.

“This innovation is expected to make contributions to cure patients with asthma,” he said.

Kadek said the achievement was made possible thanks to the support from their lecturer, faculty, university as well as PT. Kimia Farma that had funded the project.

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