

# Pharmacy

## Department Seminar

Date: 2<sup>nd</sup> April 2018  
Time: 5pm  
Venue: S4A L3,  
Rooms C&D

### Leveraging theory and user-centered design strategies in the development of an app for oral anticancer medication adherence



Eskinder graduated with a B.Pharm and an MSc (Pharmacoepidemiology and Social Pharmacy) from Addis Ababa University (AAU), Ethiopia. He worked at AAU holding various academic positions, before joining NUS to pursue his Ph.D. He is currently working under the supervision of A/Prof Lita Chew. His present research interest is on the development and quality evaluation of mHealth-based medication management interventions.

A simple search in the different app stores would reveal hundreds of apps claiming benefits for enhancing medication adherence. However, a great majority of these apps are criticized for their lack of essential adherence enhancing features, over-reliance on medication reminders and limited involvement of patients and health professionals in the process of development. These apps also lack specificity for disease conditions such as cancer.

Behavioural theories suggest that enhancing medication adherence requires addressing the complex determinants of the problem. In this regard, the use of theories in the app development process helps in maximizing the potential of smartphone technologies to deliver multiple strategies in one app-based intervention. This will ensure the potential effectiveness of the app as the use of theory helps in targeting modifiable determinants of adherence. The development process should also involve end users through iterative cycles of prototyping and usability testing to facilitate easier refinement and optimization of the app for widespread adoption. This can be done under the guidance of health behaviour change intervention frameworks such as the intervention mapping (IM) approach. The process also necessitates the use of robust study designs employing qualitative methodologies in addition to commonly used quantitative designs.

In this seminar, we will discuss the design and development of an oral anticancer medication adherence app by adapting the IM approach and user-centred design strategies.