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| IPupilX for objective Dietary Assessment | |
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| Project Time Frame | 3 to 6 months |
| Project Description | Food has a direct impact on health and diet-related diseases such as cardiovascular disease and cancers, are major causes of morbidity and mortality in Australia. Monitoring food intake is vital for identifying which foods, and in what amounts contribute to the burden of disease or protect us from it. Current methods of assessing diet rely heavily on memory and are expensive to implement. Wearable technologies may be able to enhance or even replace these assessment methods, improving accuracy and lowering costs. iPupilX is a unique lightweight wearable technology developed at Deakin University that will capture images of food consumption and use algorithms to recognize foods and estimate portion size and nutrient content. The assessment method will be validated against the ASA24, an automated self-administered 24-hour dietary assessment tool developed by the United States National Cancer Institute and adapted to reflect the Australia Food supply and nutrient databases. |
| Methodological Approach | A convenience sample of Medical Students, who are members of NutMed, will be invited to wear the iPupilX glasses for one weekday and one weekend day and to complete the self-administered ASA24 food recall the following days. Data from the iPupilX and the food recall will be uploaded onto a Deakin database and analysed to determine nutrient intakes. Nutrient intakes from the images and from the 24-hr recall will be compared with the recall. |
| Covid-19 considerations | Participants can be recruited and data can be collected online |
| Ethics | This project requires ethics approval |
| Necessary Skills / Knowledge | Knowledge of dietary guidelines and an interest in nutrition  Document analysis skills |
| Additional Details | Joint supervision between the School of Health and Social Development and the School of Medicine |