

**Project Title**

Joint Excel Study Status Electronic Dashboard - **THE JESSED PROJECT**

**Project Lead and Members**

Beh Wei Heng Edward, Wang Jin, Goh Yeow Tee, Koh Siyue Mariko

**Organisation(s) Involved**

Singapore General Hospital

**Healthcare Family Group(s) Involved in this Project**

Healthcare Administration

**Applicable Specialty or Discipline**

Clinical Trials and Research Centre

**Aims**

To create an innovative platform to improve clinical trial management

**Background**

See poster appended/ below

**Methods**

See poster appended/ below

**Results**

See poster appended/ below

**Conclusion**

See poster appended/ below

### **Additional Information**

This project is related to a 2020 project of the similar title.

### **Project Category**

Technology, Digital Health, Chat Bots, Artificial Intelligence

### **Keywords**

Interactive Dashboard in Clinical Trials

### **Name and Email of Project Contact Person(s)**

Name: Beh Wei Heng Edward

Email: [singaporehealthcaremanagement@singhealth.com.sg](mailto:singaporehealthcaremanagement@singhealth.com.sg)



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# Joint Excel Study Status Electronic Dashboard THE JESSED PROJECT

Beh Wei Heng Edward, Wang Jin, Goh Yeow Tee, Koh Siyue Mariko  
Clinical Trials and Research Centre, Singapore General Hospital

## What is The JESSED Project?

- The Joint Excel Study Status Electronic Dashboard (JESSED) is a new Clinical Trial Management System (CTMS) created in Clinical Trials and Research Centre (CTRC).
- It is designed to improve clinical trial management by automating data collection and allows visualization of this data using interactive dashboards.

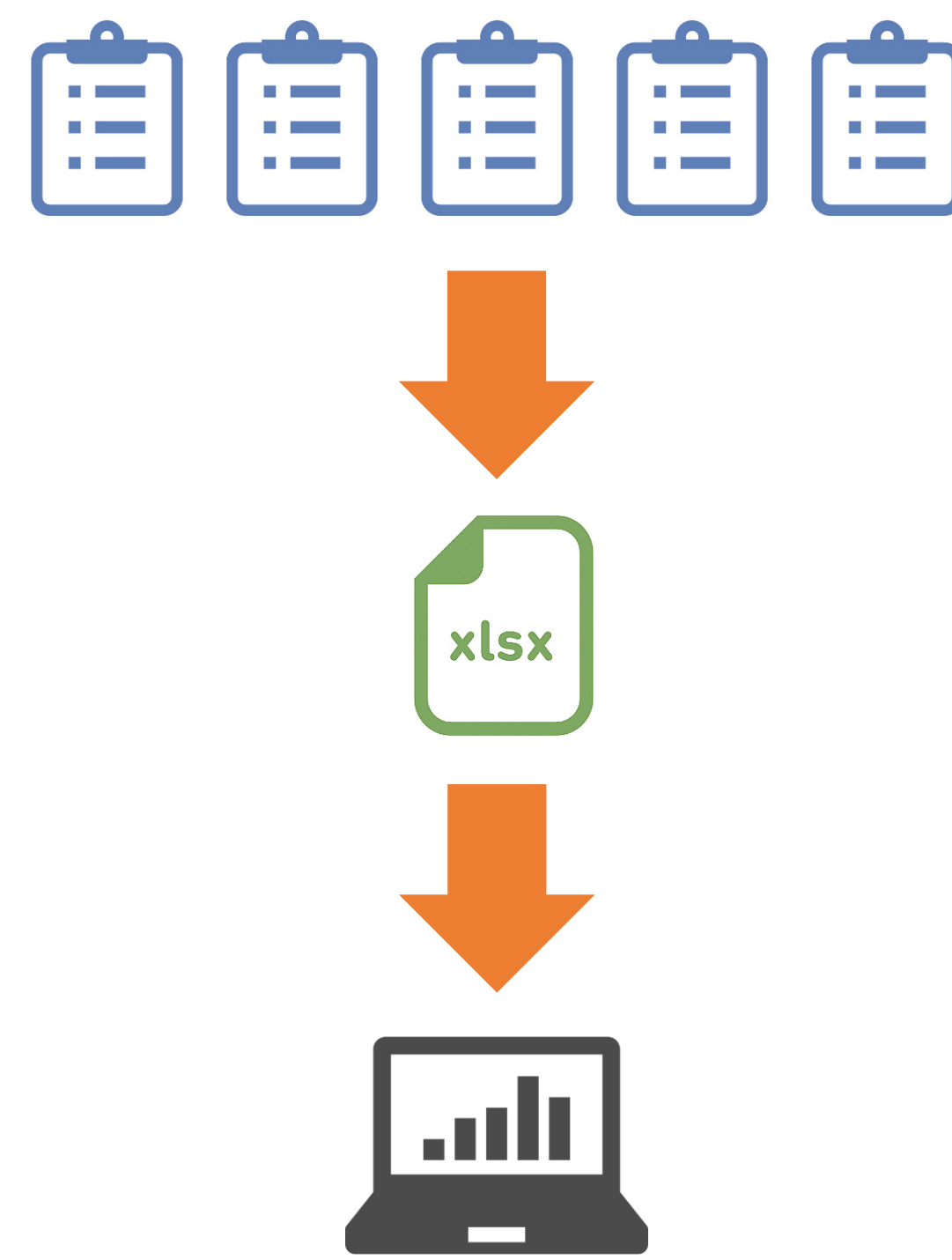
## Background

- CTRC has over 60 clinical trials (CT) handled by more than 10 different coordinators.
- Before JESSED was created, CT data (recruitment numbers, compliance, safety, etc.) were collected on paper and then manually entered into an Excel database by admin staff, which entails a few problems:
  - The transcription process was tedious and prone to human errors.
  - Data collection was not real-time and not easily analyzable.

## Project Goals

- Creation of an innovative IT platform to:
  - Automate data consolidation process to eliminate manual transcription and human errors.
  - Ability to visualize and report data on one screen.
  - Ability to filter data quickly for effective, data-driven decision making.

## How Does it Work?



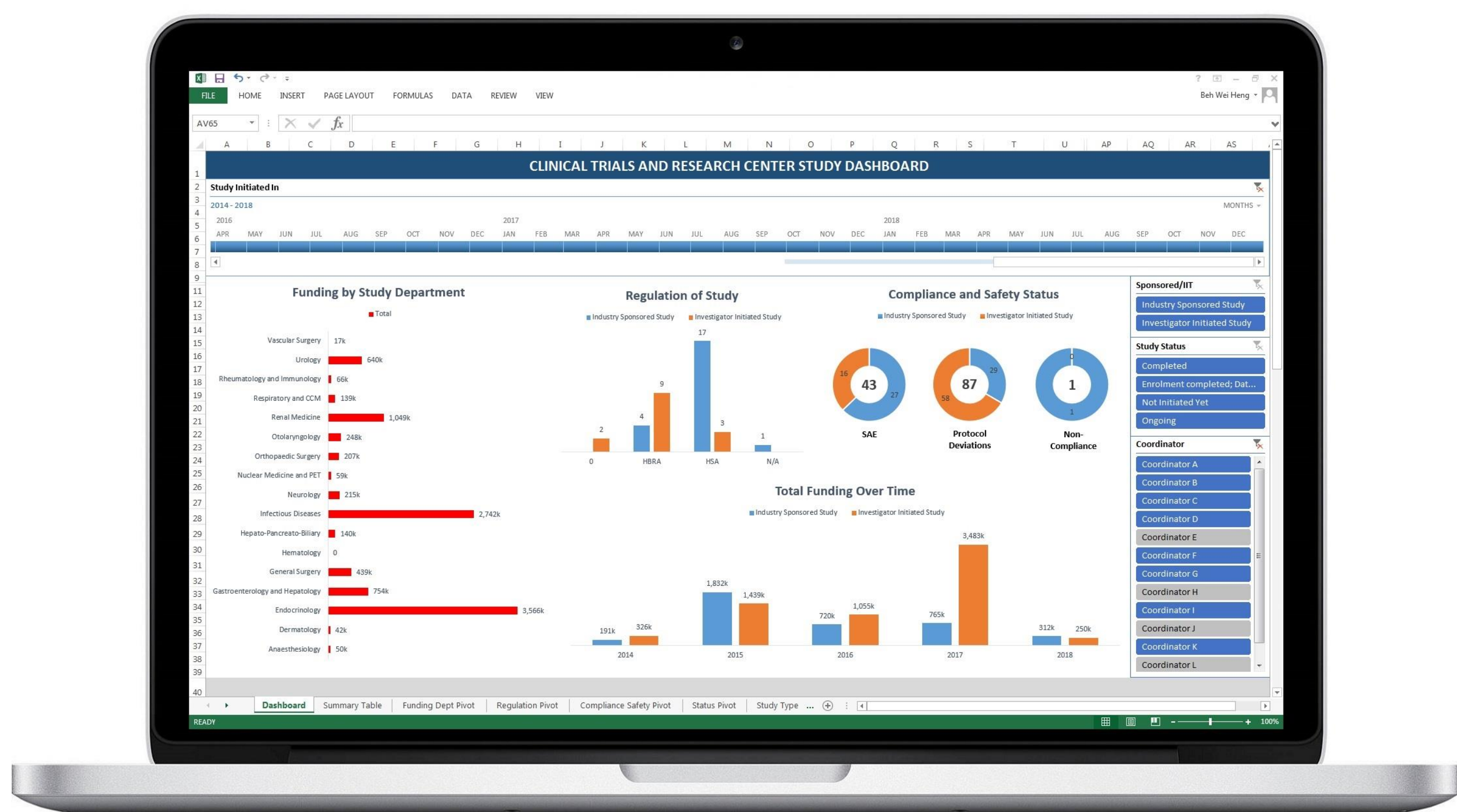
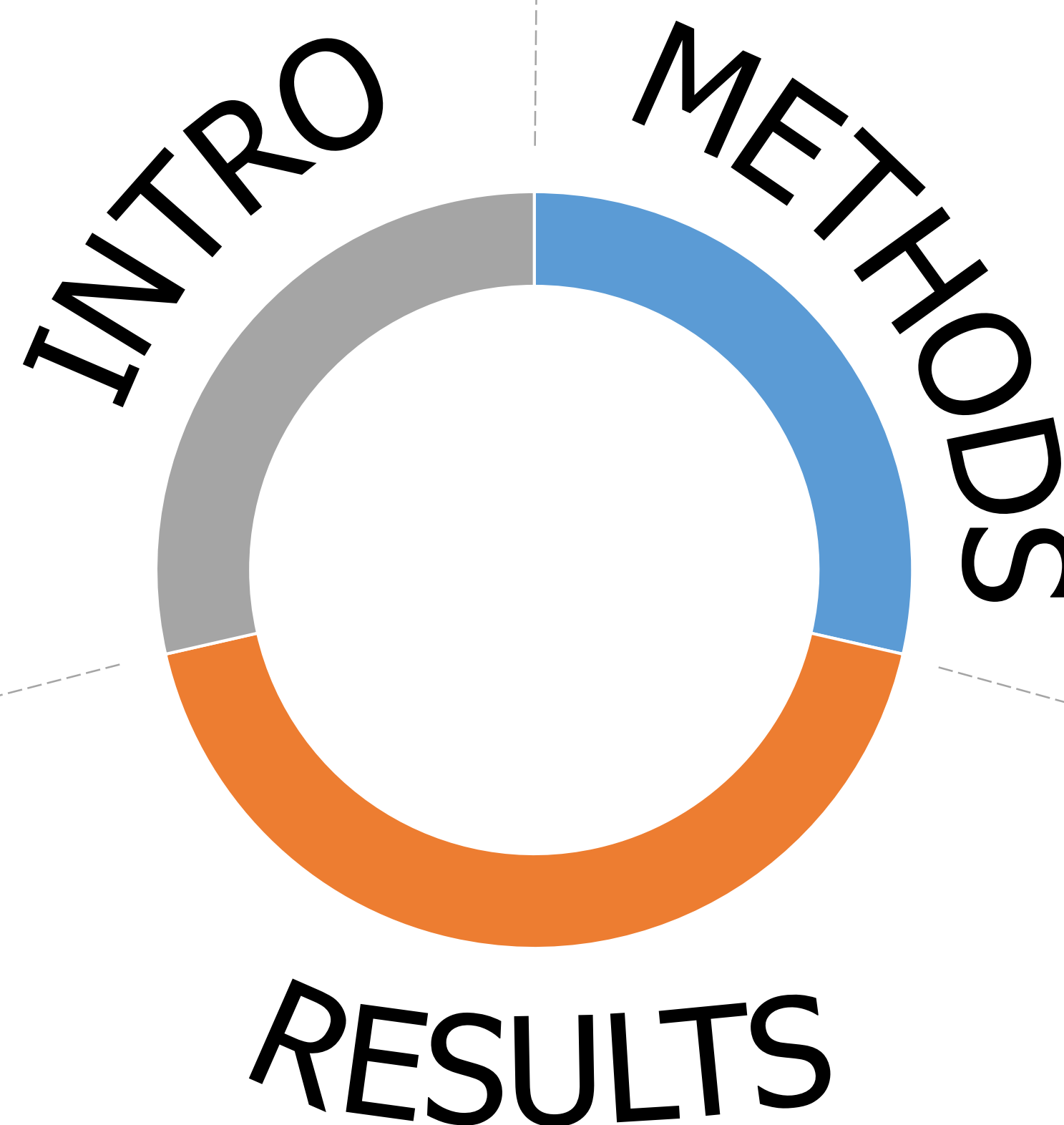
- Study coordinators enter trial updates into JESSED.
- Data is consolidated into an Excel summary table automatically using Macros and Excel functions. No manual data transcription is required.
- The summary table is used to generate pivot tables and charts, which are then assembled into interactive dashboards.

## Some Nifty Features



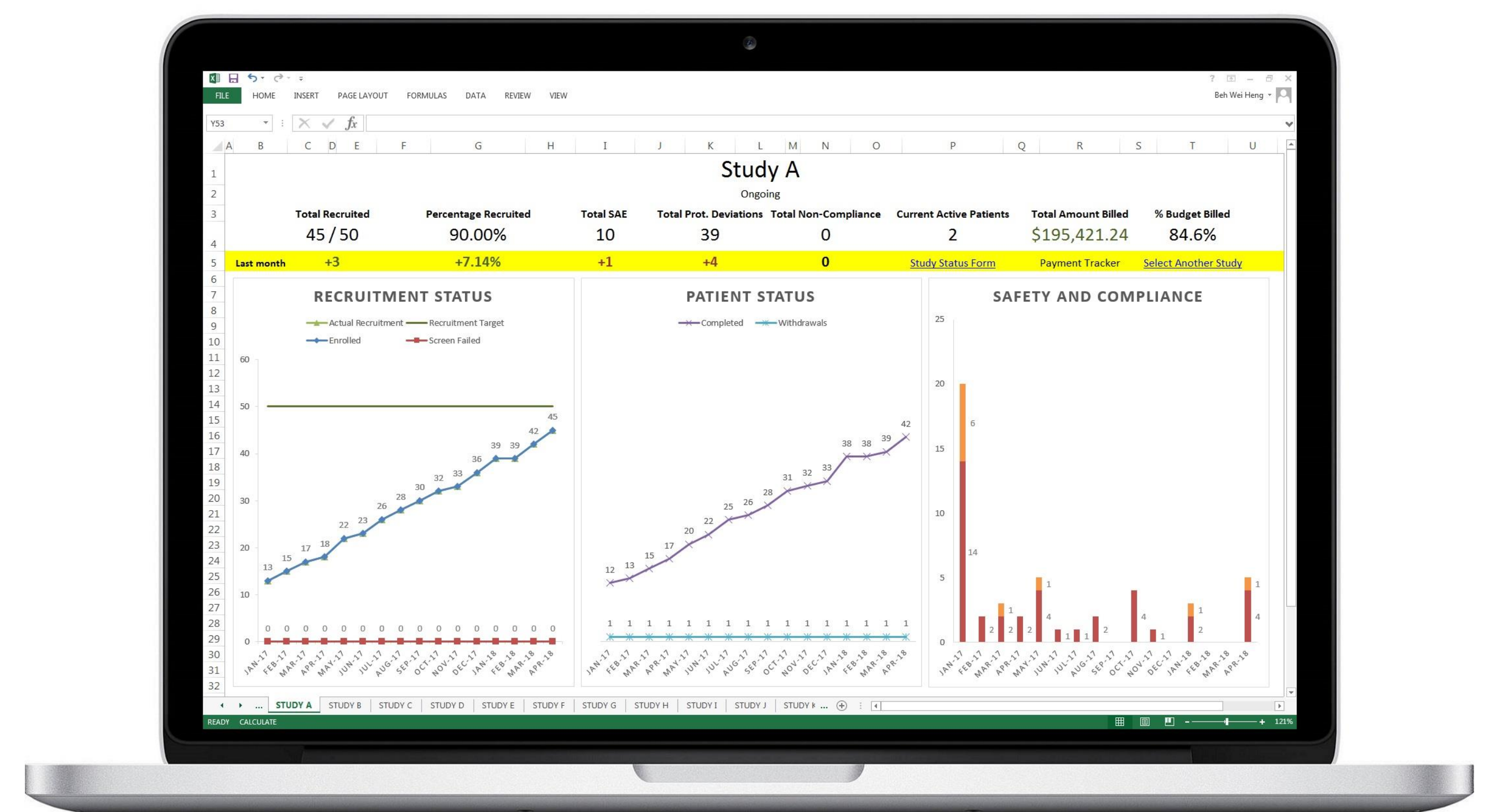
Excel Macros are versatile. In the JESSED dashboard, a few lines of codes are embedded to automatically resize the dashboard to fit your screen size.

Whether you are using a small 12" laptop or a big 32" desktop monitor, the dashboard will always readjust itself to fit edge-to-edge!



## General Study Status Dashboard

- Interactive, strategic dashboard.
- This managerial-level, interactive dashboard provides a bird's eye view of overall trends and metrics for all studies conducted in CTCR.
- It contains visual filters to display desired data and trends, across different time points with a few mouse clicks.
- For example, we can find out the total funding secured for ongoing, industry-sponsored trials initiated in FY2017 by combining a few filters. This data can then be used to plan budget for FY2018.



## Individual Study Status Dashboards

- Static, operational dashboards.
- A set of study-specific dashboards provide detailed look into each study conducted in CTCR, including recruitment trends, patient safety updates, and billing details.
- They also keep track of trial compliance issues, actionable items, and timely closure of these items.
- Usually these dashboards are used to discover details of selected clinical trials, after they have been filtered out by the General Study Status Dashboard as areas of interest.

**Conclusion:** The JESSED Project has improved efficiency in clinical trial management in CTCR, Singapore General Hospital. It streamlines data collection process with real-time data update and eliminates the need for human transcription. It has also enhanced organizational understanding using interactive dashboards, and has potential to perform analysis for data-driven decision making. This was achieved in-house without any funding.