

# UK Biobank Annual Meeting

*29 June 2017*

*Presented by Judith Lenane, Chief Clinical Officer & EVP, Operations*

# iRhythm Technology – Zio Service

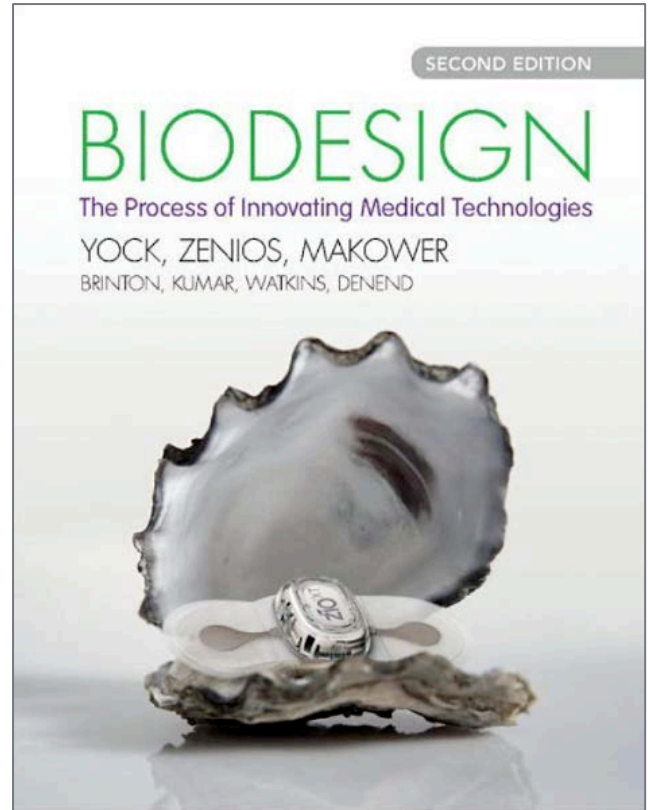
**Founded in 2006**

## **Stanford Biodesign Concept -**

- Borne out of unmet clinical need
- Disruptive technology

### **Stanford Biodesign on iRhythm<sup>1</sup>:**

**iRhythm becomes the seventh company to launch from Stanford Biodesign. iRhythm, with its Zio Patch technology will go on to become the biggest company initiated from a Biodesign Innovation Fellowship project to date, impacting 400,000 patients by 2016.**



1 – Source Stanford Byers Center of Biodesign website

# ZIO® Service Combines Wearable Technology and Big Data Analytics to Provide a Differentiated Solution

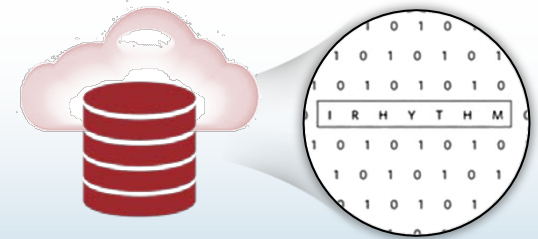
## Wearable Biosensor



Longer term, continuous monitoring;  
Up to 1.5 million heartbeats / patient

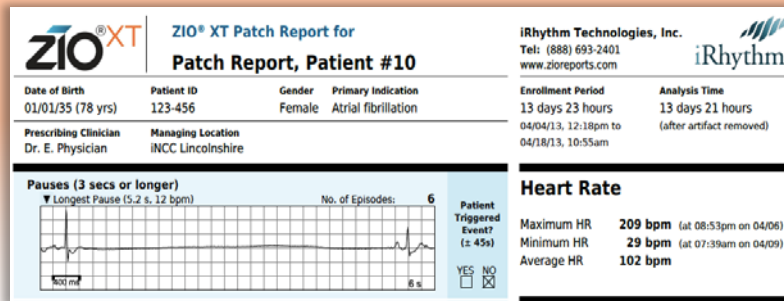


## Proprietary Data Analytics



Cloud-based "curation" engine and one of the  
world's largest ambulatory ECG data repositories

## Clinically-Actionable Digital Report to Inform Diagnosis and Management

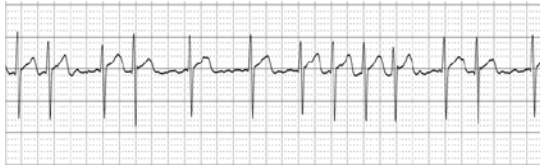


# Big Data Analytics Distill Up to 1.5M Heartbeats Into a Concise and Actionable Report

## Patient Data Sources

### Longer Term Continuous Monitoring

*Up to 1.5 million heartbeats / patient*



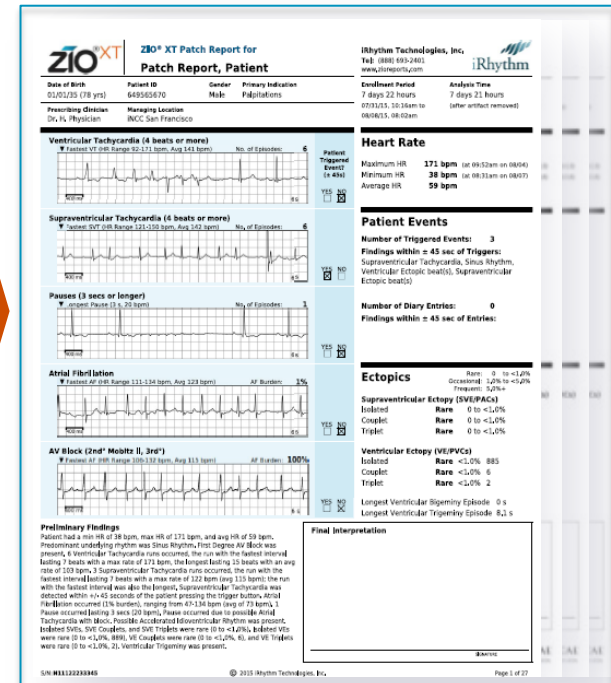
### Patient Reported Health Info



**iRhythm™**

Analytical "Curation"  
Engine & Data Repository

## Digital Report to Inform Diagnosis and Management



*One of the largest repositories of **annotated & continuous** ambulatory ECG recordings with contextual patient information... 160 million+ hours of curated data*

# UK Biobank and iRhythm Partnership: In 2015, First Participant Utilised the Zio Service

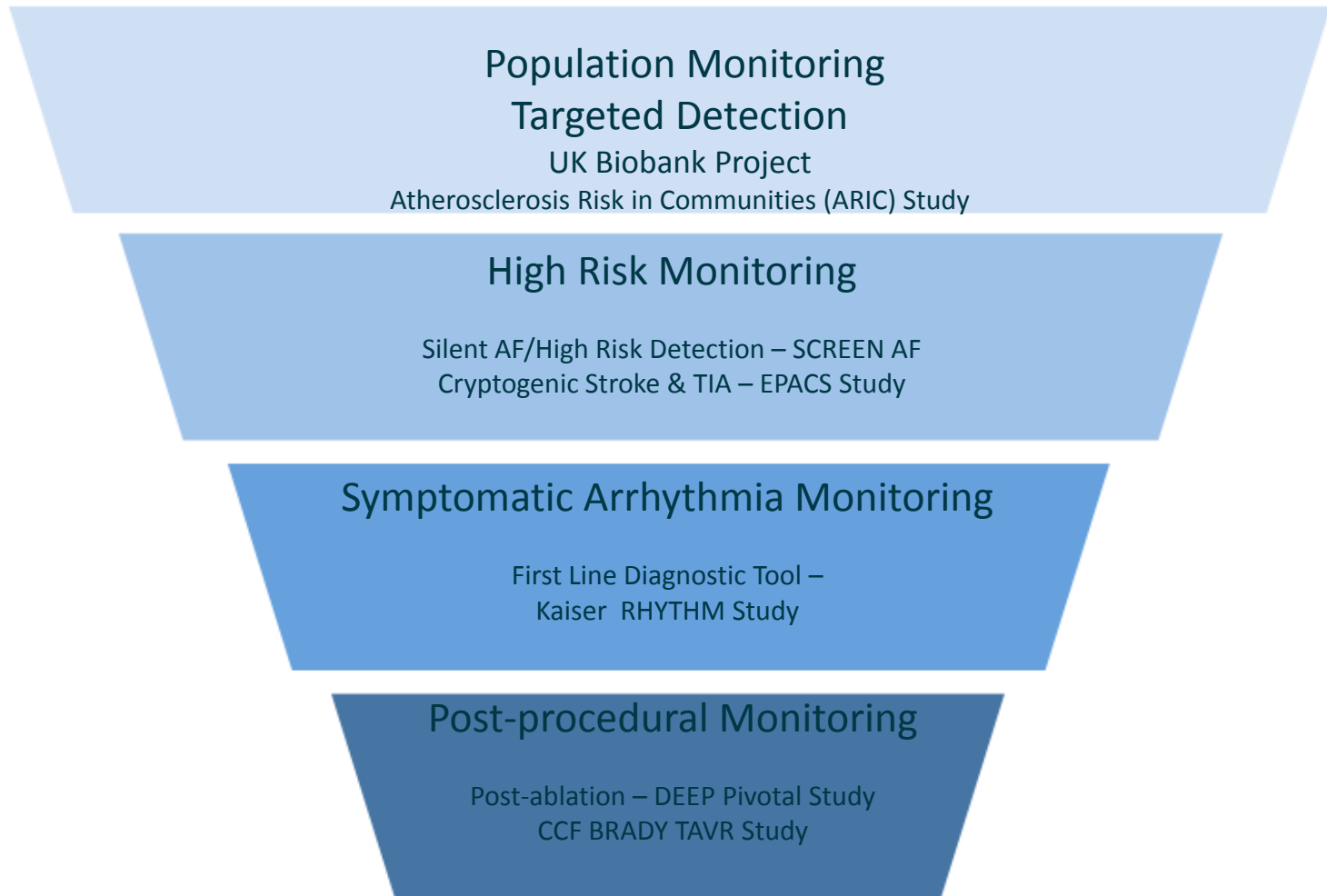
## Ease of Use for Volunteers

- Participant Zio Patch Wear Time:
  - Instructed to wear for 14 days
  - Average wear time: 12.37 days

## Comprehensive Data Creation

- Individual Report
- Raw Data File
- Aggregate level curated data
  - to assist researchers pattern and impact of atrial fibrillation

# Defining the Clinical Problem of Atrial Fibrillation through Continuous Monitoring



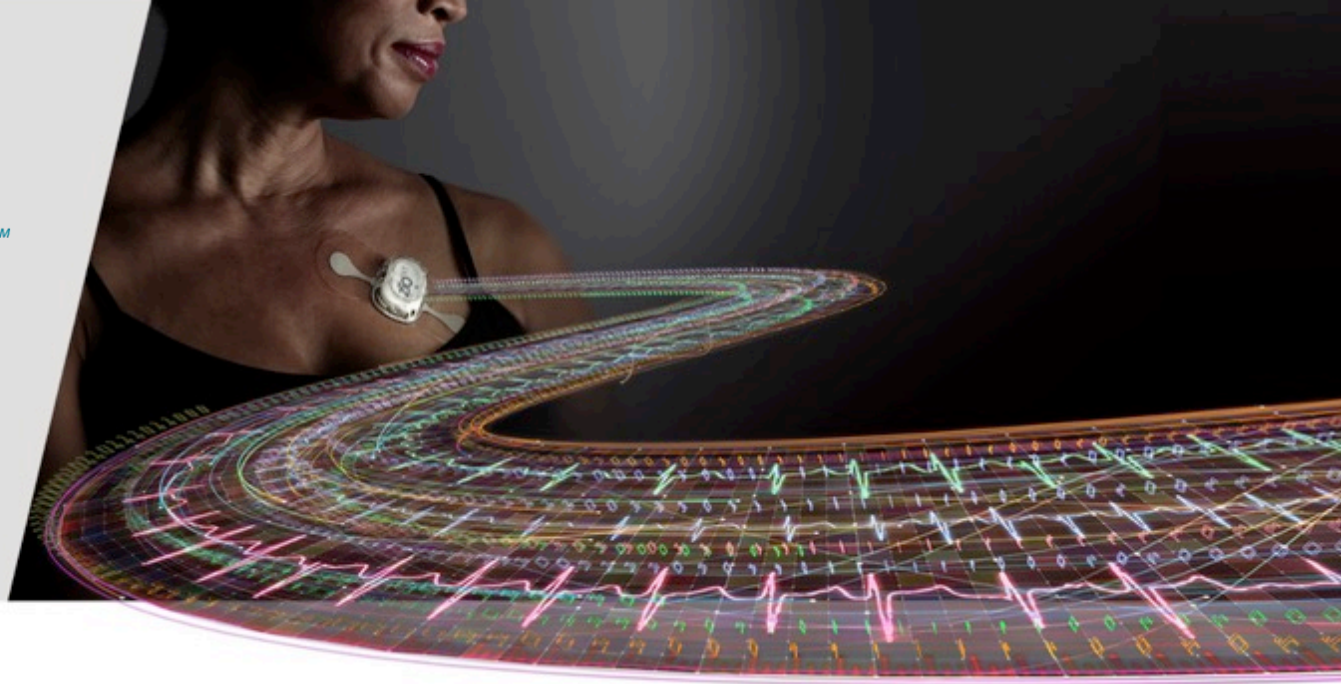
# In addition to UK Biobank, iRhythm is Collaborating on Several Key Research Projects

- Kaiser Permanente Real-world Heart Monitoring Strategy Evaluation, Treatment Patterns and Health Metrics in Atrial Fibrillation (RHYTHM) Study
- mHealth Screening to Prevent Strokes (mSTOPs) Study with Aetna beneficiaries
- Randomized Clinical Trial of Early Prolonged Ambulatory Cardiac Monitoring After Stroke (EPACS) Study at Kings College, London
- Scripps Translational Science Institute - Pattern and Characteristics of Atrial Fibrillation in Large Cohort

# Thank You

On behalf of the iRhythm Team, thank you to the UK Biobank Participants, Researchers and Staff for your commitment to understanding diseases including atrial fibrillation.





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