

Proteus Digital Health

helius 

Proteus Digital Health

250+ employees
10 Years R&D
Unique sensors & algorithms
Hardware & applications software
Medical & wellness product development
Commercial-scale manufacturing
Entering commercialization phase



Redwood City,
USA
R&D



Hayward, USA
Wafer fab



Hayward, USA
Assembly








London, UK
Commercial



UK
Manufacturing
Site
2014

Proteus Corporate Summary

Investors	Board and Management	Commercial Partners	Technology
<p>Private Equity and VC Carlyle Group Essex Woodlands Adams Street Partners Spring Ridge Ventures Fletcher Spaght YF Capital</p> <p>Corporate Novartis Otsuka Oracle Medtronic St Jude Kaiser ON Semiconductor</p> <p>Over \$200MM in equity</p> <p>Over \$350MM total capital</p>	<p>Board Frank Fischer <i>Ventritex, Neuropace</i> Robert Epstein <i>Merck, Medco</i> Alan Levy <i>Medicines Company, Intuitive</i> Myrtle Potter <i>Genentech, BMS, Amazon</i> Ryan Schwarz <i>Carlyle</i> Charlie Songhurst <i>Microsoft</i> Immanuel Thangaraj <i>Essex Woodlands</i></p> <p>Management Andrew Thompson, CEO <i>IPO and M&A success</i> Markus Christen, Development <i>Global Head BD&L NVS Diagnostics</i> Donald Cowling, Commercial <i>\$1B+ in digital product sales</i> Ben Costello <i>Head of operations, Dicon</i> Tony Levitan, People <i>CEO eGreetings</i> David O'Reilly, Product <i>Personalized medicine leader</i> George Savage, Medical <i>8 FDA approvals</i> Mark Zdeblick, Technology <i>100+ patents</i></p>	    	<p>All developed in-house</p> <p>500+ active patent filings</p> <p>130+ issued patents</p>



SENSOR INGREDIENTS

Silicon: 0.9mg - Bananas have 5mg per 100 grams
Copper: 0.02mg - Cashews have 2.2mg per 100 grams
Magnesium: 0.01mg - Halibut has 107mg per 100 grams

THE WORLD'S FIRST INGESTIBLE SENSOR

Proteus ingestible sensor is the size of a pencil tip



+



+



proteus
DIGITAL HEALTH

Pathway to Digital Medicine: 24 Months and \$4.5 Million



Digital NDA

Ingestible Sensor approved as medical device

- Unlimited use by patients ingesting up to 30 sensors per day

Approval pathway agreed by agency leadership for adding sensor to existing drugs

- No additional safety or efficacy data required
- No bioequivalence data required for similar formulation
- Approval standard: manufacturing data package (e.g., stability)
- Opportunity to shorten timeline for future products

Pathway confirmed in meetings with agency review staff on specific digital medicines

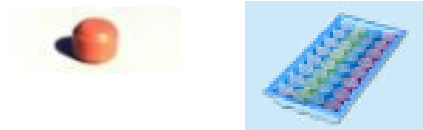







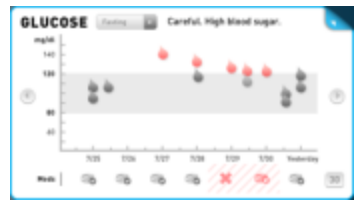
Initial indications favorable for similar path in China and Japan

Conventional NDA

Phase I, II and III clinical trials focused on safety and efficacy data

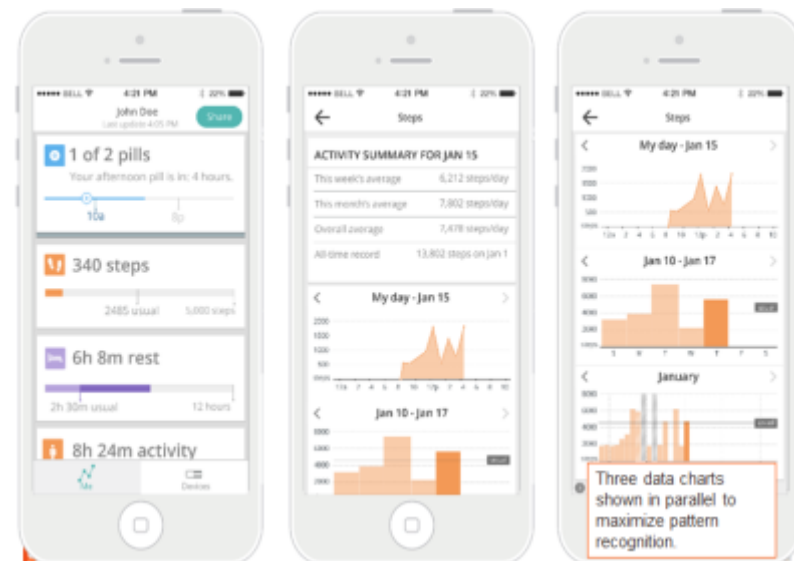
On average 132 months and \$4.5 Billion

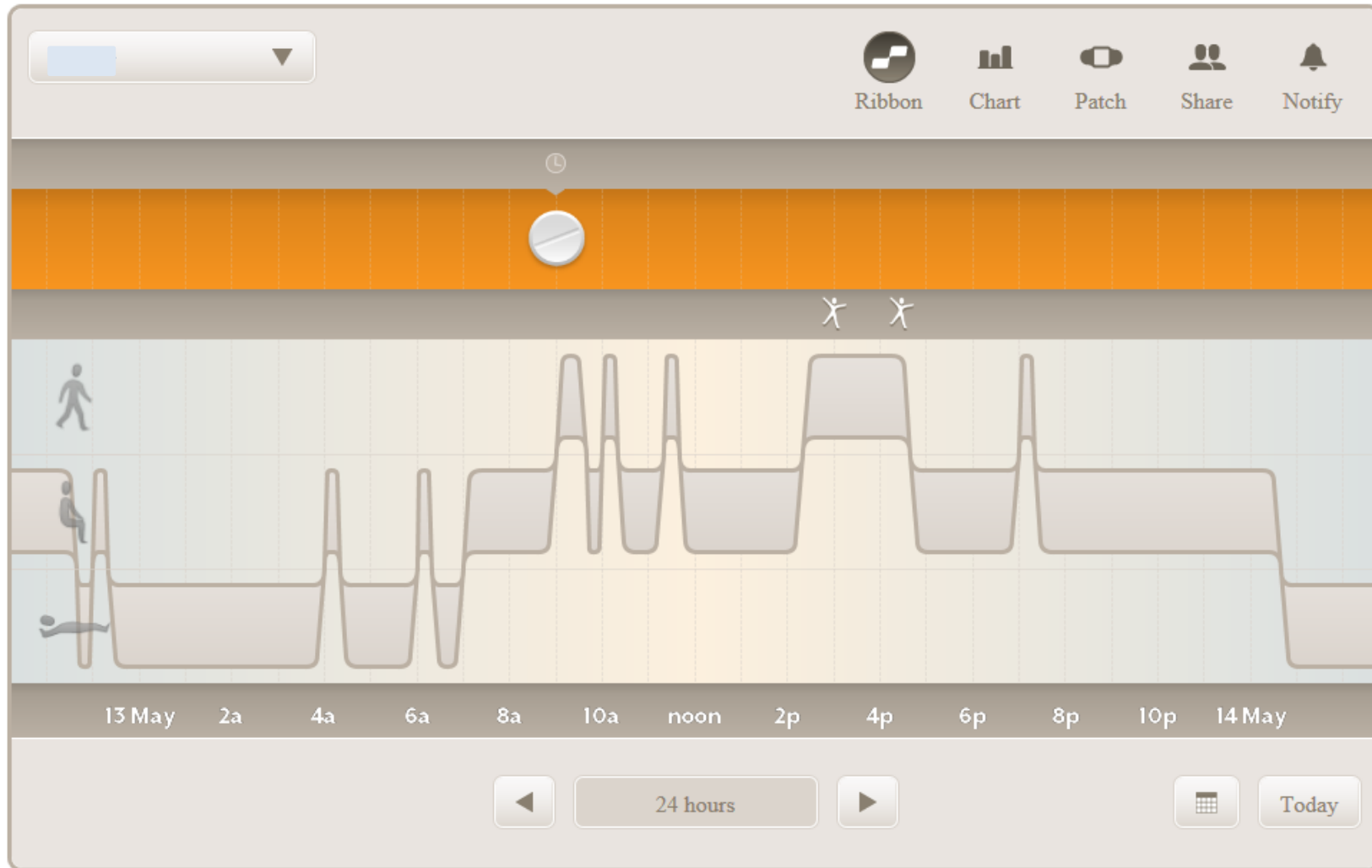
Product Progression

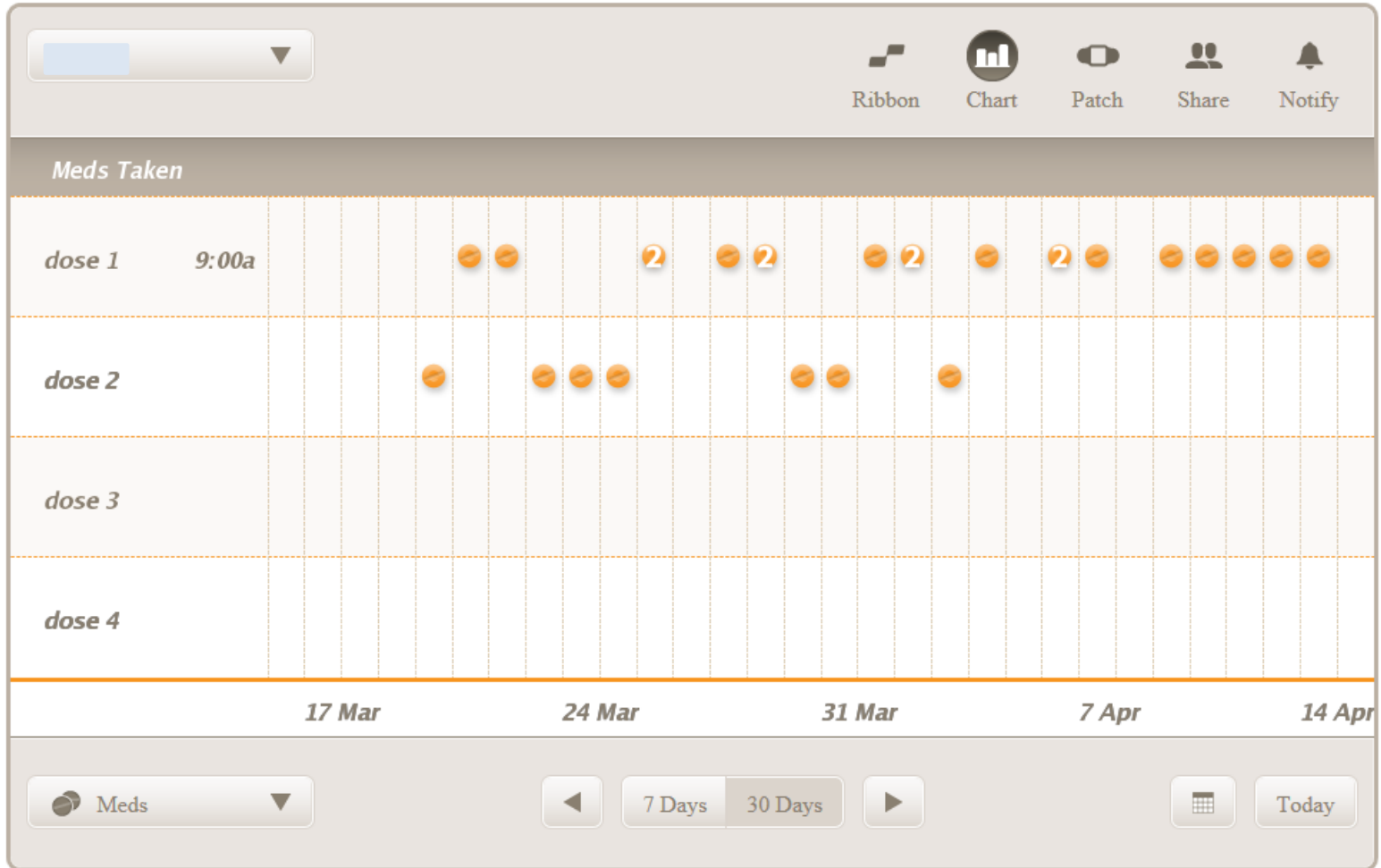
	Today	2015	2015 onwards
Focus	Introduction to Service	Scaled Adoption	Digital Medicines
Ingestible	Co-Ingestion Digital Tablets (co-package optional) 	On Demand Digital Medicines (co-encapsulation) 	Integrated Digital Medicines (co-manufacturing) 
Wearable			
Application			

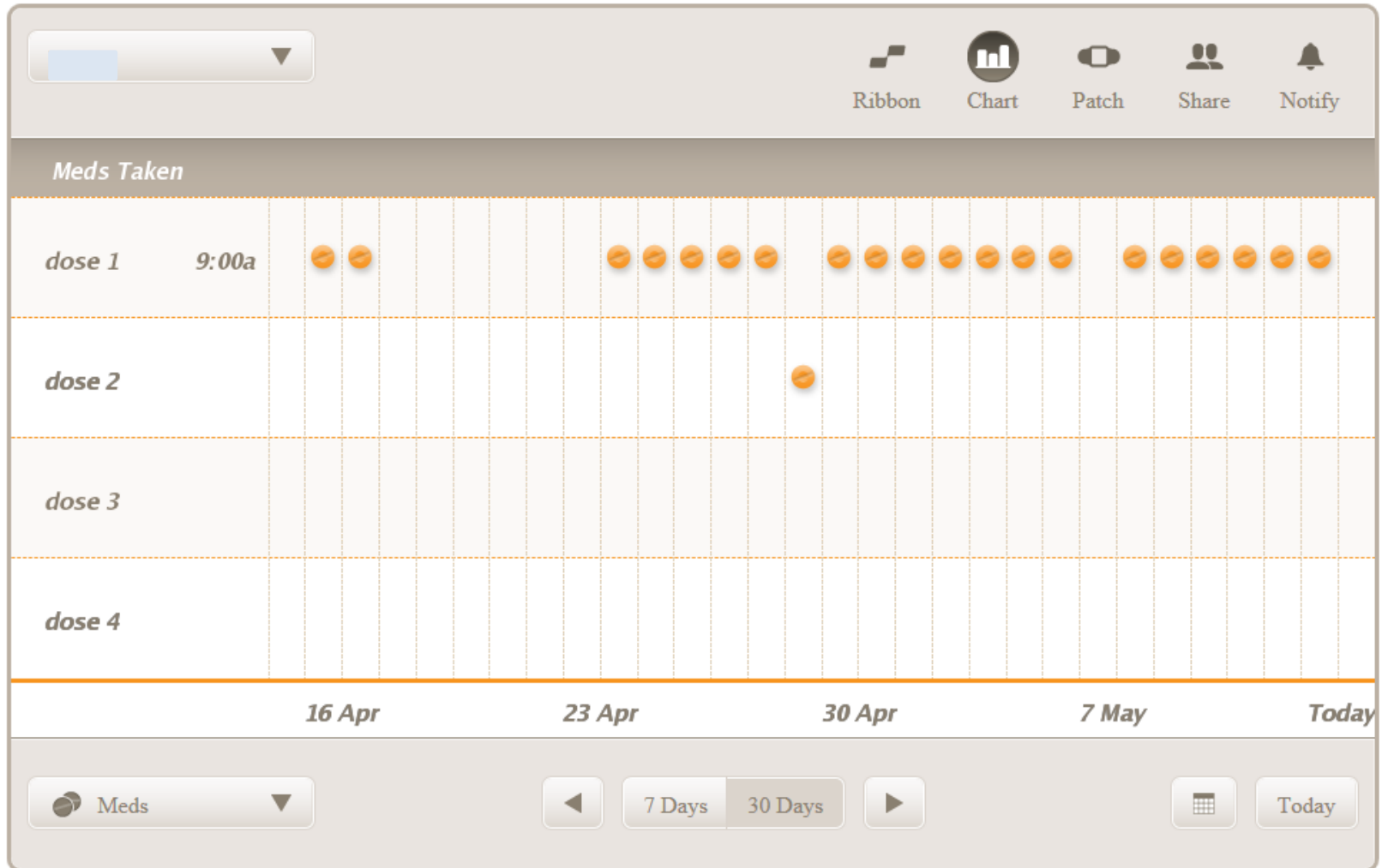
Proteus Product in Action Today – Supporting Clinical Practice

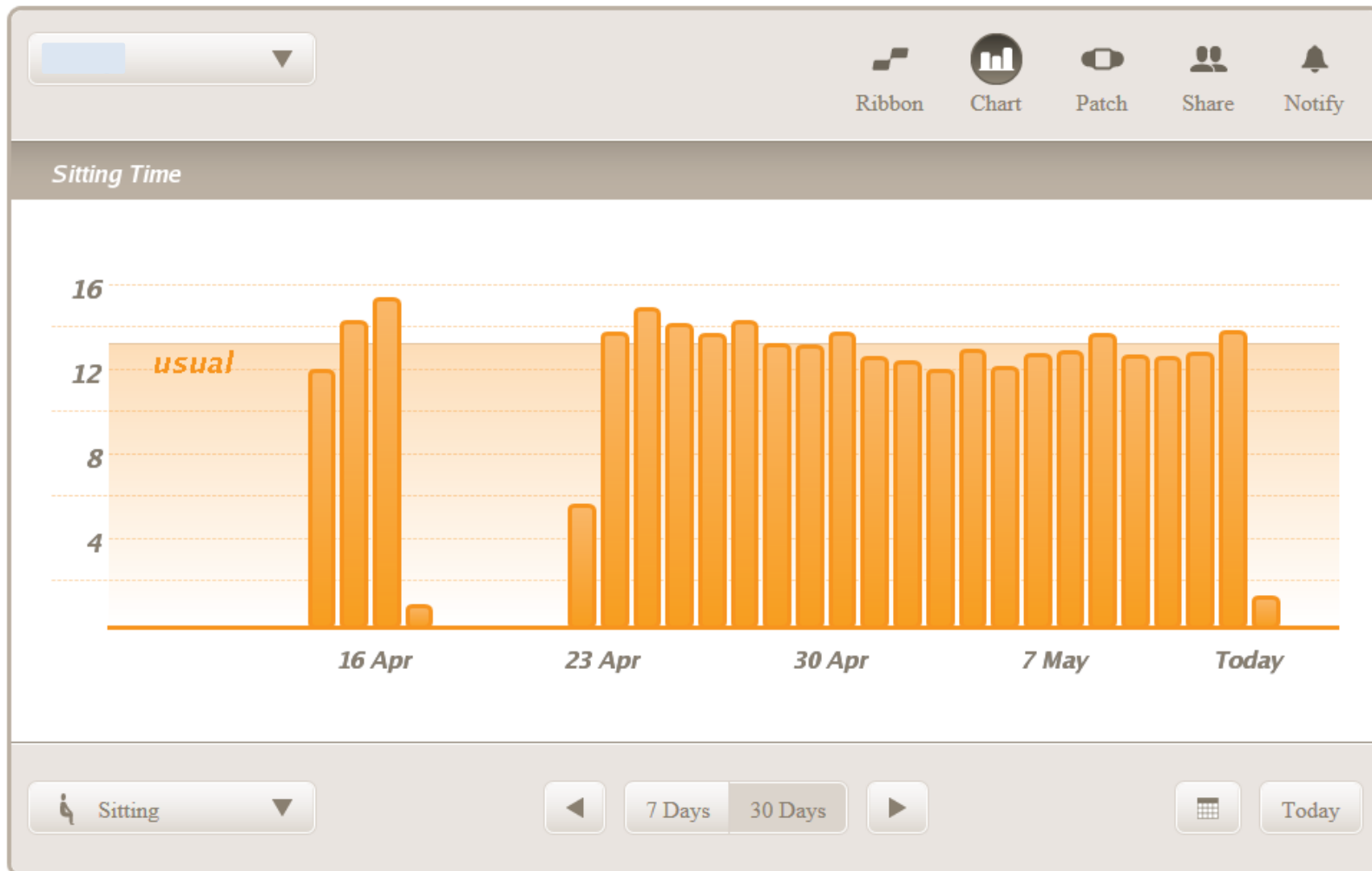
- **Uncontrolled Hypertension**
 - Simple clinical evaluation tool to distinguish between lack of therapeutic response to treatment and sub-optimal medication taking
- **Transition to Home**
 - Simple tool to sustain patients at home, act as an early warning of need
- **Diabetes**
 - Simple tool to sustain and maintain patients medication taking and activity targets. Also engage patients and informal carers
- **Dementia**
 - Simple tool to communicate medicine taking and activity habits to patients, families and healthcare professionals



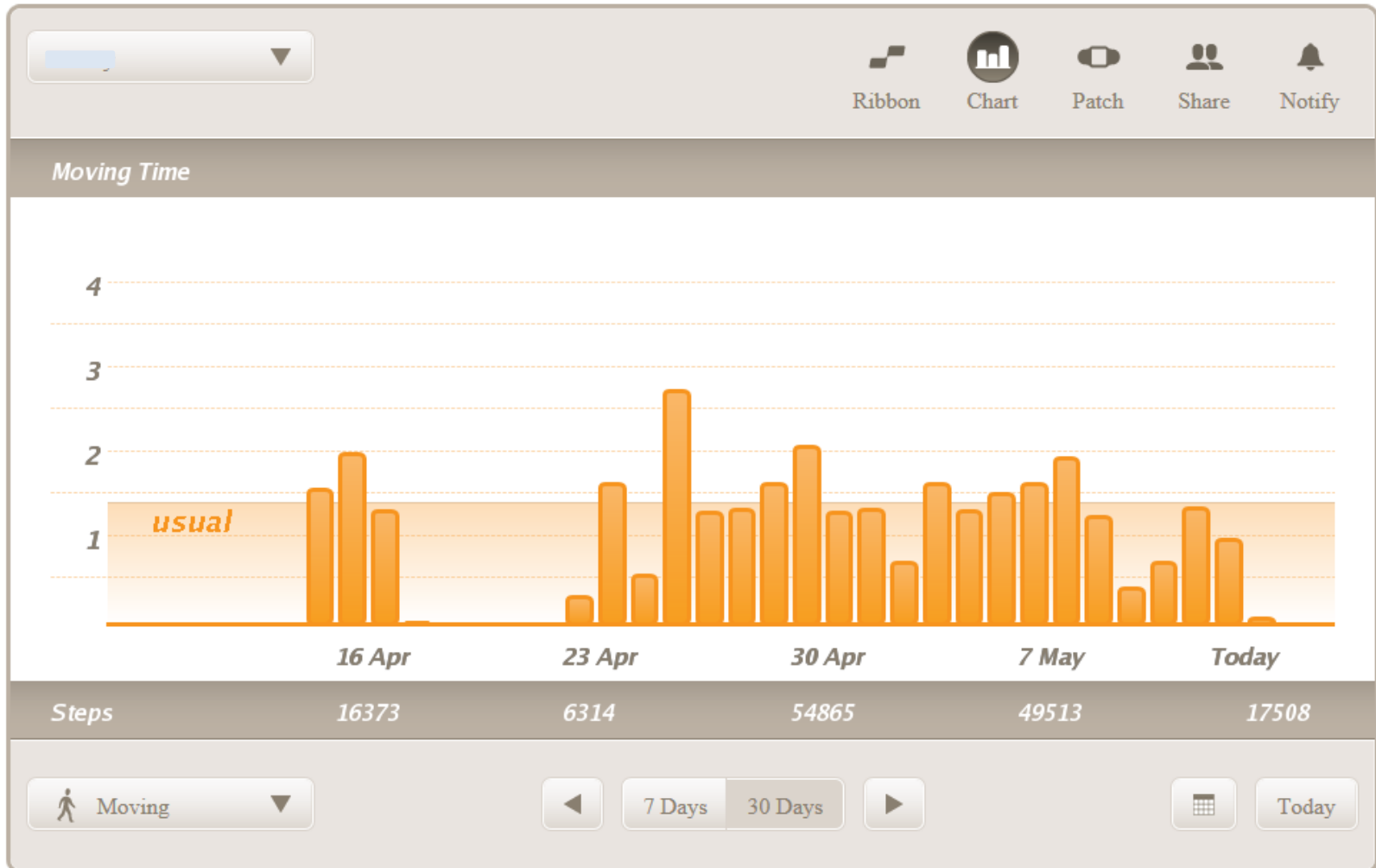











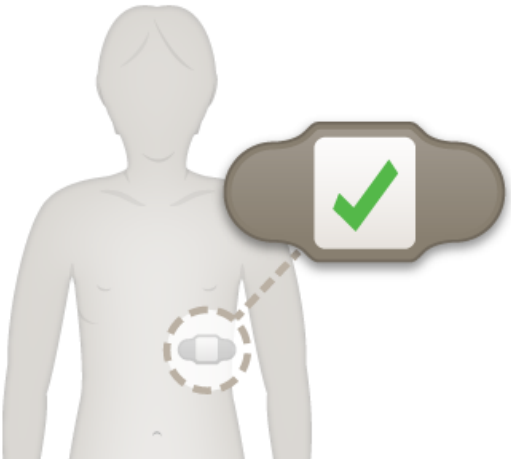


Time spent moving



Ribbon Chart Patch Share Notify

Patch Status



[Redacted]'s Patch is working.

Patch worn for 2 days.

Importance of Adopting Innovation Early

Mobile Phone Evolution



Without early bricks – no smart phones today

Helius Today
CE Mark
Co-Ingestion
Improving usability
Demonstrating Value

Bridging The Gap
Need real world use – in Practice
Clinician and Patient feedback
Demonstrate Viability
Uncover Weakness
Improve and Develop

Helius Tomorrow
Digital Medicines
Integrated into
Clinical Practice