



# PEAC Presentation: Patient turned Hacker

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# Introduction

- ▶ Jay Radcliffe
- ▶ Type I Diabetic (2000 Diagnosis)
- ▶ Master's Degree In Information Security Engineering
- ▶ Director, Product Testing and Research, Thermo Fisher Scientific



# Medtronic Minimed

- ▶ Conducted research on my own insulin pump in 2010/2011
- ▶ Published and Presented Research at BlackHat conference 2011
- ▶ Found Wireless weaknesses that allowed me to change therapy settings and suspend insulin delivery
- ▶ Response from Medtronic was not ideal



# Animas Ping

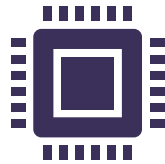
- ▶ Conducted research on my own Animas Ping insulin pump system 2015-2016
- ▶ Found wireless weaknesses that allowed for unauthorized insulin delivery
- ▶ Released information publicly in cooperation with Johnson & Johnson to inform users and patients of security risks



# Future



New Insulin Pumps are connected to cellphones wirelessly (Bluetooth)



Bluetooth has some security built-in, but has proven to have vulnerabilities just like all connected technology



More connectivity to the "cloud"



Is this safer? Better? TBD