ARTIFICIAL INTELLIGENCE of THINGS for SMARTER EHEALTH of THE FUTURE

Ted Chang, Ph.D. CTO of Quanta Computer

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張嘉淵 Ted Chang, Ph.D. CTO, VP & GM, Quanta Computer Professor, College of Al and Green Energy, NCTU Member of APEC Business Advisory Council (ABAC)



QUANTA COMPUTER since 1988 by Barry Lam

BBC NEWS LONDON

Home	UK	Africa	Asia	Europ
Englan		orthern		

Can London capitalise on the Games?



The biggest computer maker on this planet



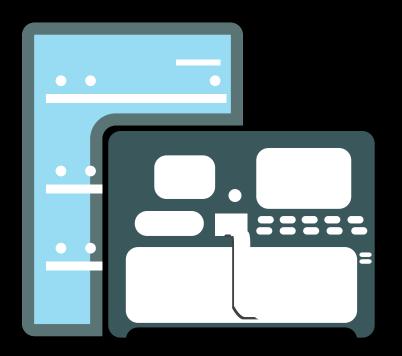


Quanta Computer Inc.



making Ideas happen





Mainframe

one computer, many people

PC one computer, one person

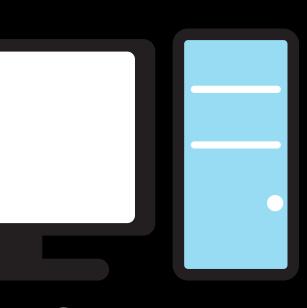
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Cloud Computing many computers, many people

Quanta Transformation 32 Years of Innovation

1988 Mobile Computing

2000 Cloud Computing

2016 Al Computing

2020 Distributed AI computing AI/5G Tools W#1

Notebook

Server

AI Tools



Consumer Product Group (CPG)

Note Book

Smart Wearable



Smart Office



Smart Healthcare

Confidential

Smart Device

Smart Home

AR

Smart Entertainment

We make tools for Al

*2018 Productivity



Cloud Infrastructure Group (cig)ServerStorageSwitchCloud

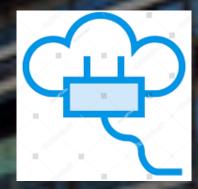


CPU、GPU EDGE

Cloud-Storage

We make tools for Al

Confidential



100G Switch

GPU Cloud Medical Cloud 5G Cloud



Industry Application Group (IAG)

5G Connectivity



Smart IOT

Robot Arm



Smart Manufacture

Confidential

Autonomous | Smart Medical **Car Server**



Smart Transportation

Device



Smart Medical Care

We make tools for Al



Quanta Transformation

Fortune Global 500

Revenue

Global Employee





Confidential

86,500

#365

Head Quarter : 5,476 Taipei Factory : 1,822 China Factory : 77,810 USA Factory: 1,316 Germany: 113 (as of 2019/06)



Supercomputer · "Taiwania 2"



Next Generation Al Computing Platform built by National Center for High-Performance Computing

The world's 20th most powerful supercompute a significant leap from the 95th last year

Quanta : computing nodes Asustek : cloud service system Taiwan Fixed Network : info security

Confidential

A core project of the Taiwan AI Strategy



Derwent Top 100 Global Innovators

DERWENT

Derwent[™]

Clarivate Analytics

"With leading technology and strong R&D capability, Quanta has become a leader in hitech markets and the best partner providing quality design and manufacturing services to top-notched brands worldwide"

Confidential

Quanta has been recognized by Derwent **Top 100 Global Innovators Award** In 2019 & 2020



2005 MIT CSAIL-QUANTA **T-Party Project**

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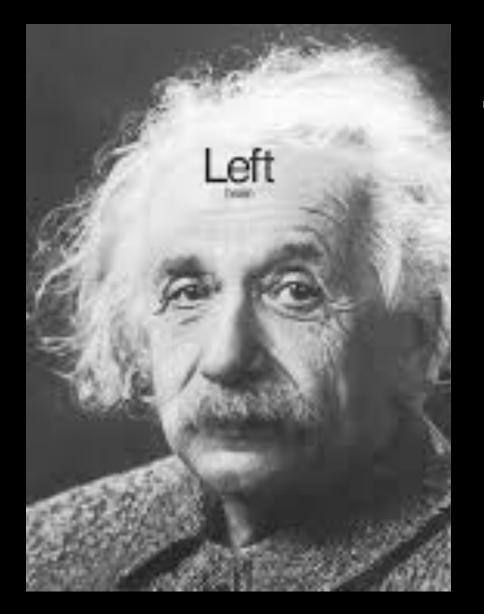
Quanta-MIT Al Research

(2005~2025)



2019 MIT CSAIL-QUANTA **Computational Healthcare Project**





TECHNOLOGY

A.I. Big Data Cloud Networking Mobile IOT AR/VR UX

The Right Brain Has Nothing Left The Left Brain Has Nothing Right

© Ted Chang

HUMANITY







ARTIFICIAL INTELLIGENCE of THINGS





MACHINE LEARNING DEEP LEARNING

ARTIFICIAL HUMAN CENTRIC APPLICATIONS INTELLIGENCE OF THINGS

HUMAN ALGORITHMS



SMARI

Algorithm Big Data Cloud Device

© Ted Chang

ALGORITHM

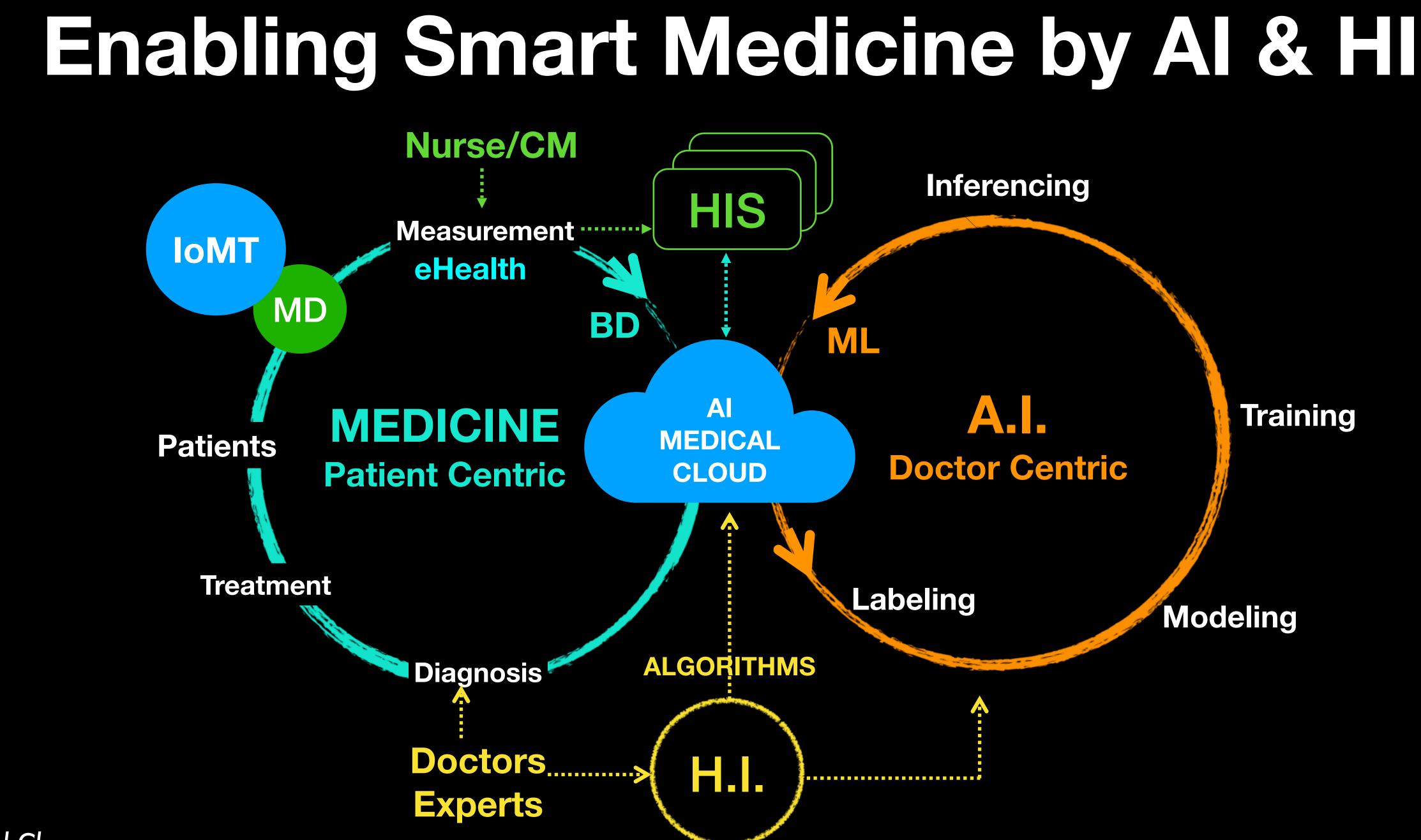
BIG DATA

MACHINE LEARNING

CLOUD COMPUTING

101





Enabling Precision Healthcare for Anywhere, Anytime and Anyone through AloT

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Hospital

Patients





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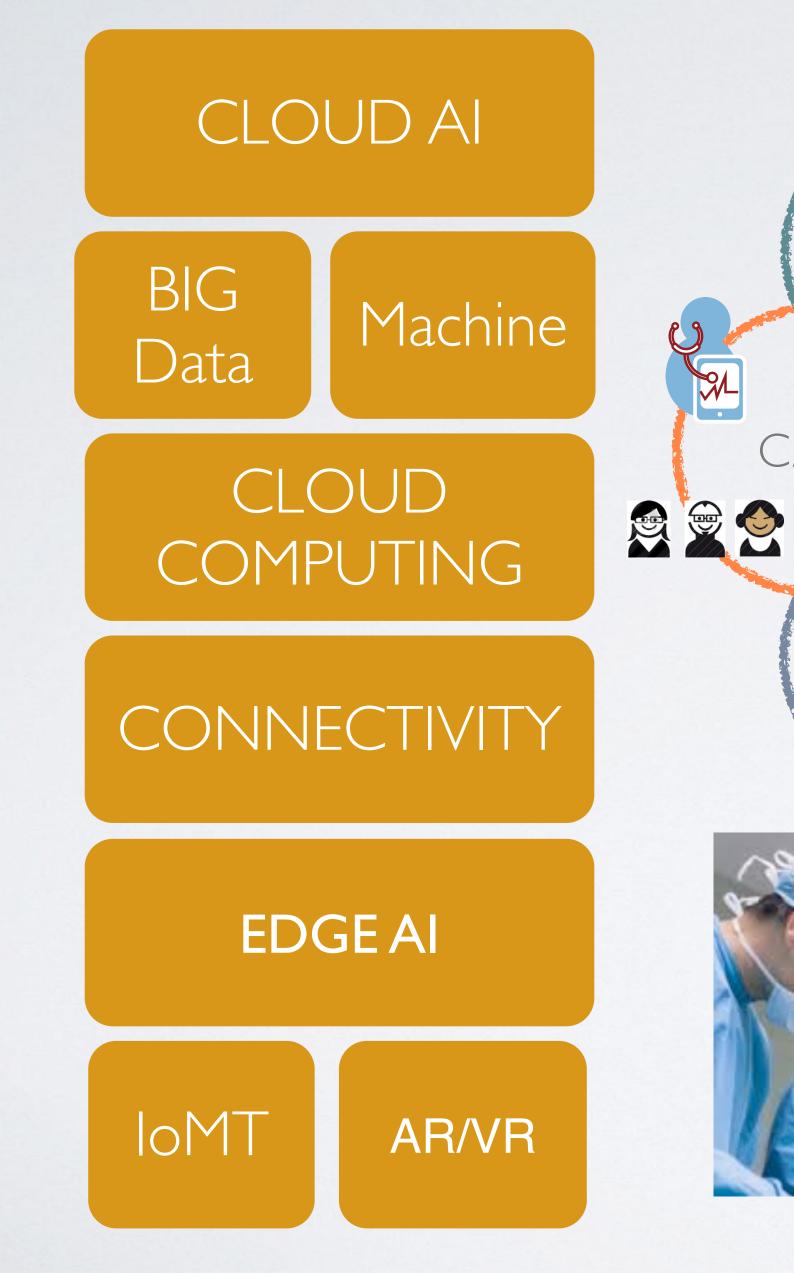




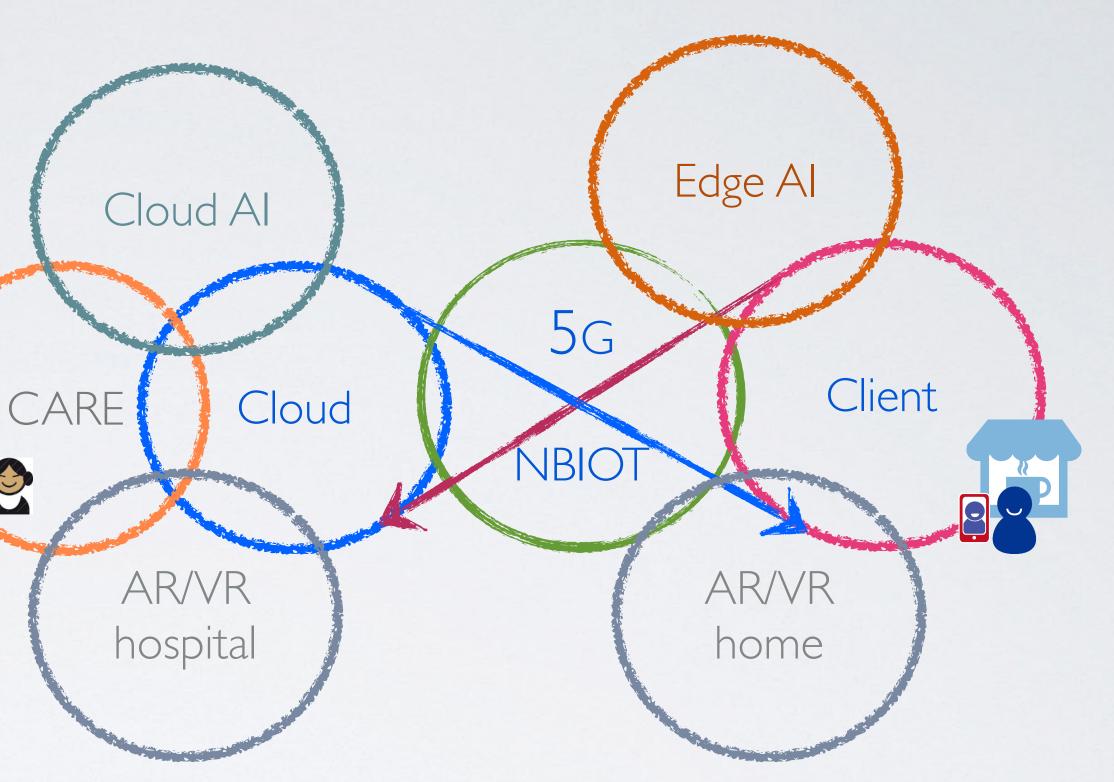








AoIT Medicine/5G/AR/VR









QOC Smart device





隨身心電圖量測儀 QOCA ecg101 / QOCA ecg1201

QOC Smart ward



耳鏡 / 口內攝影機

QOCA 智慧床邊照護系統

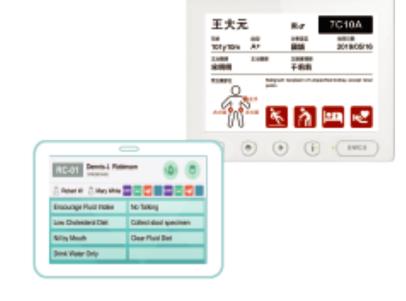
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QOC smart telemedicine





醫院對居家



QOCA 智慧床頭卡

醫院對醫院

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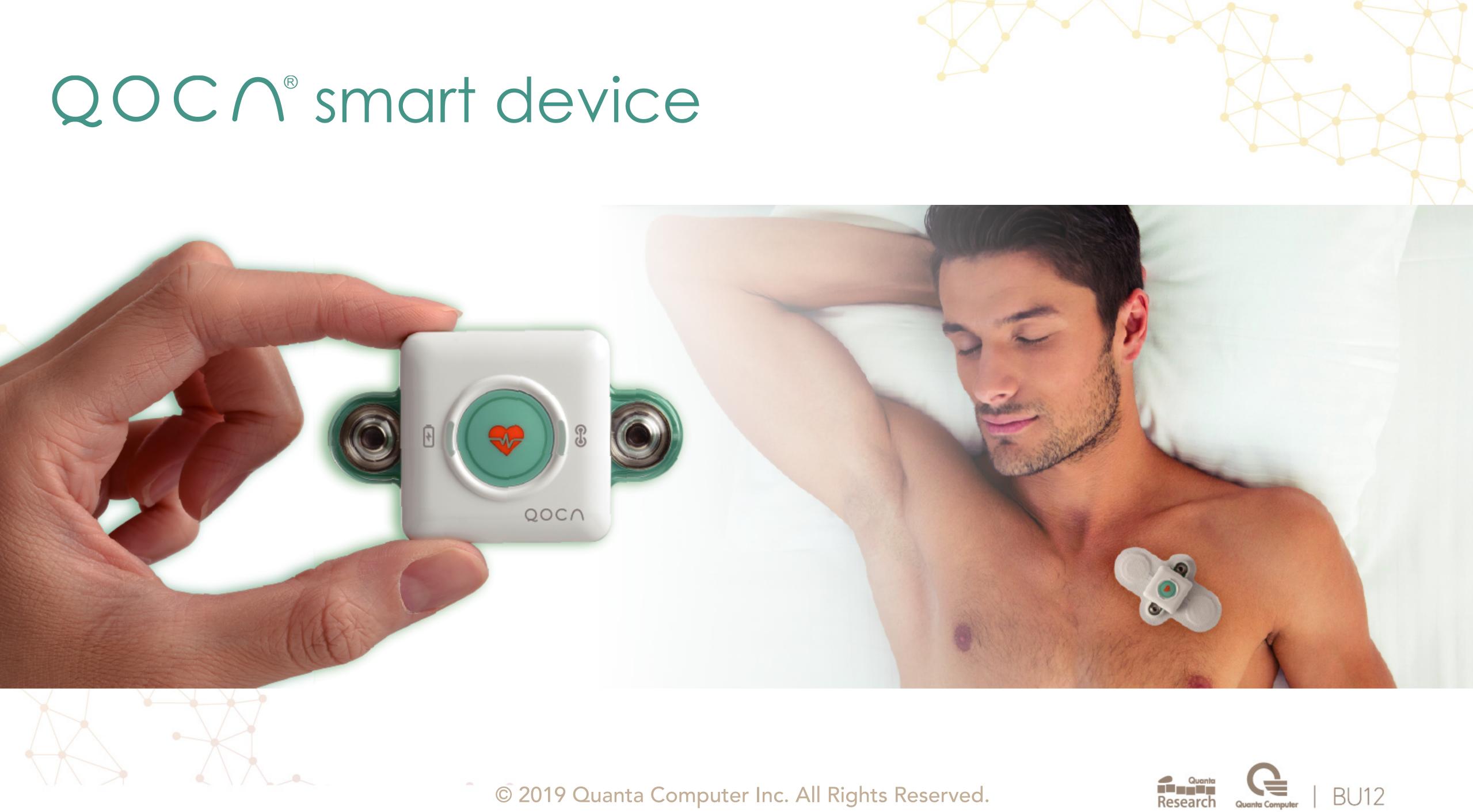
QOCA 智慧白板系統



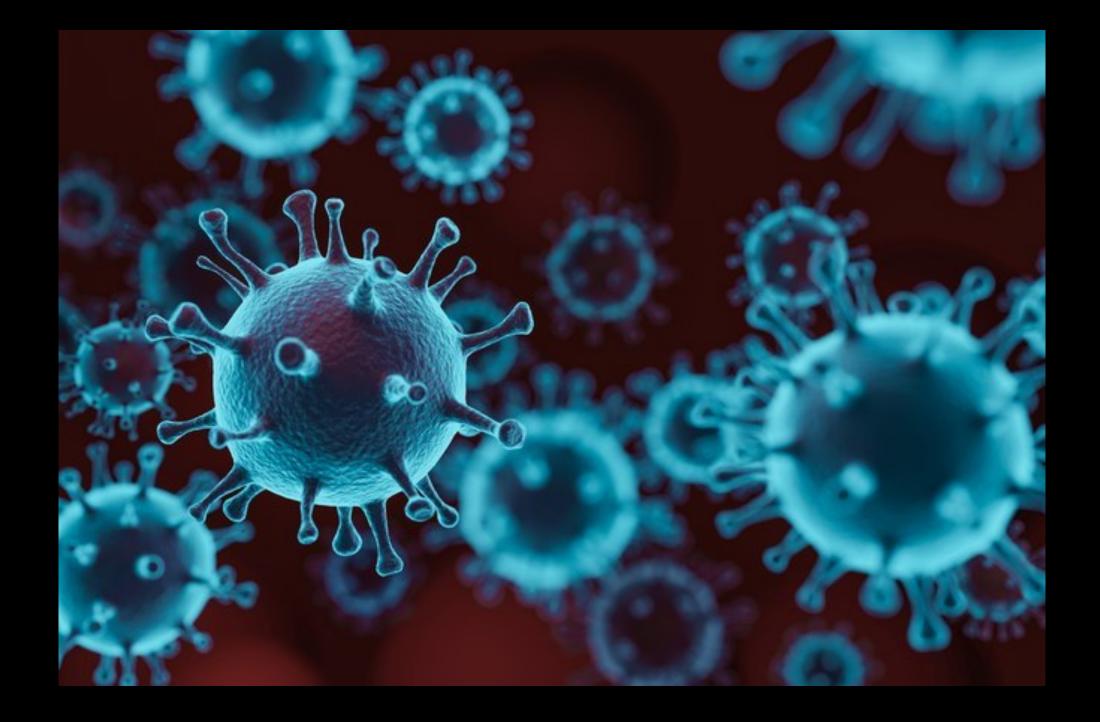






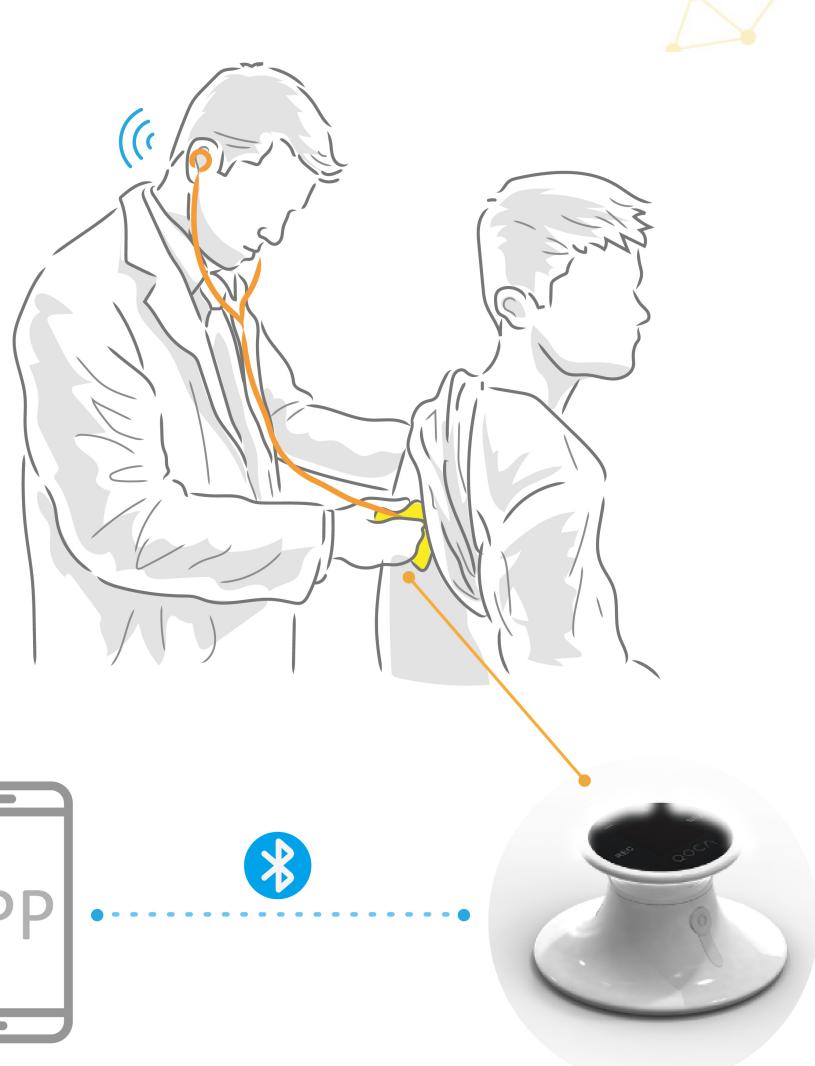


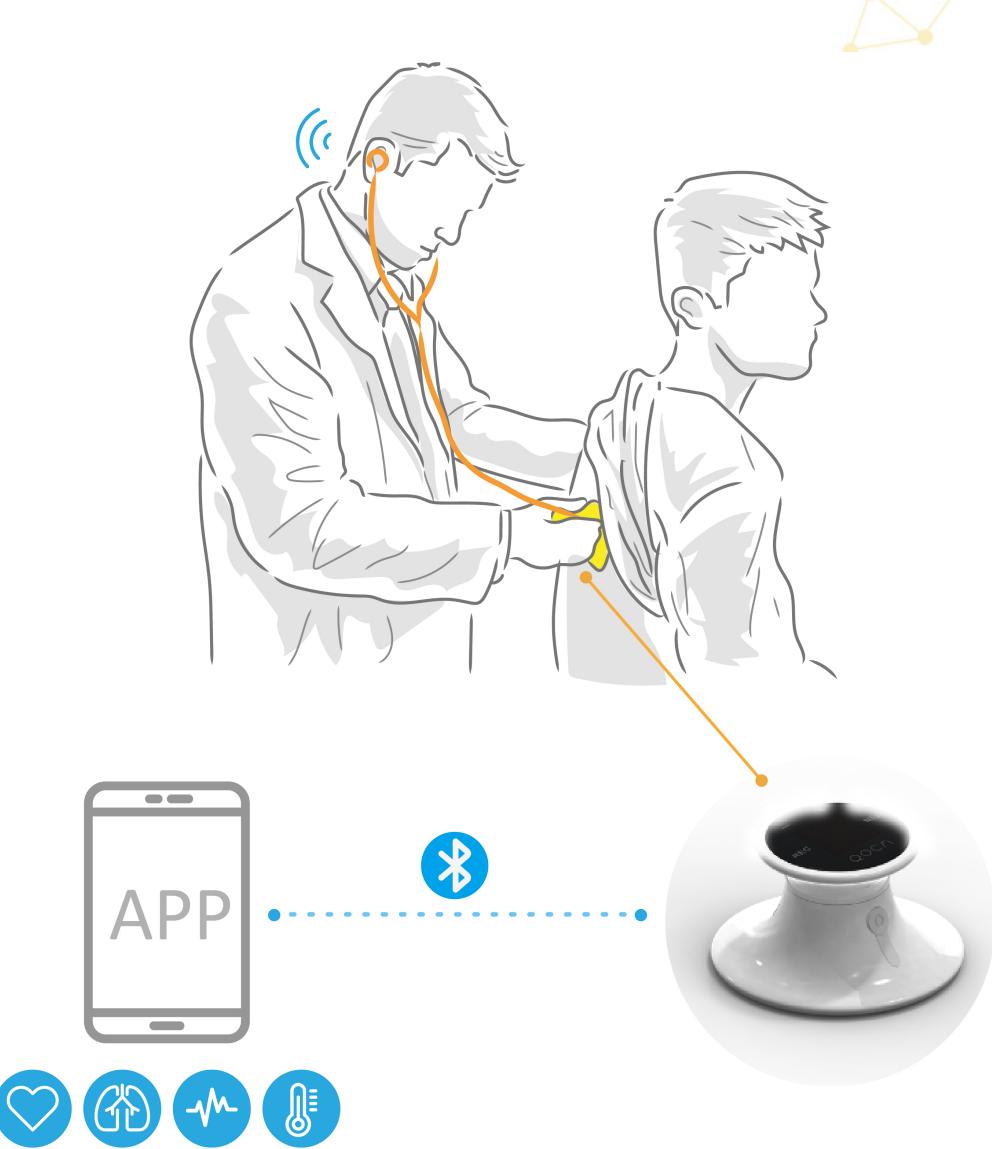




Contactless Precision Medicine







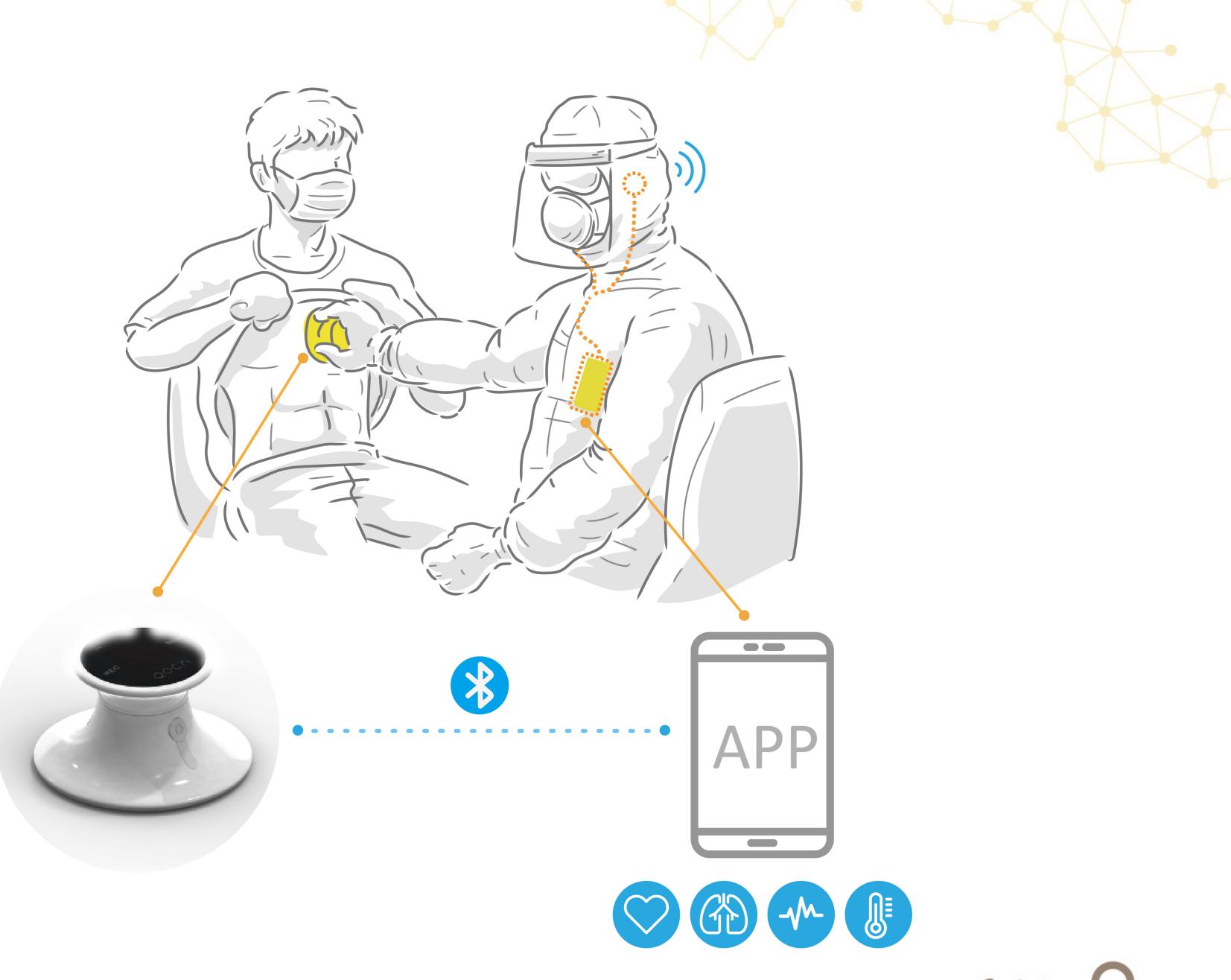
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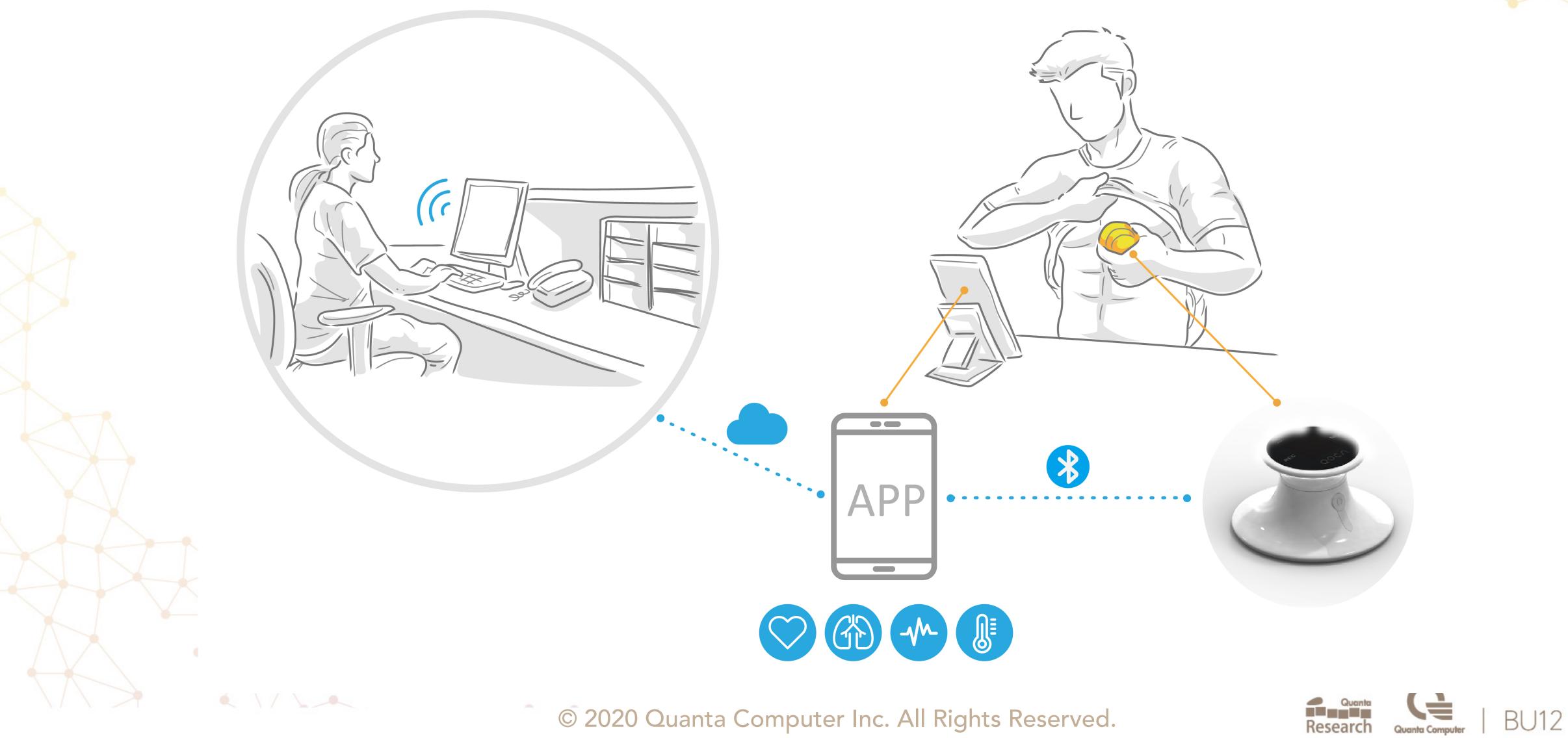
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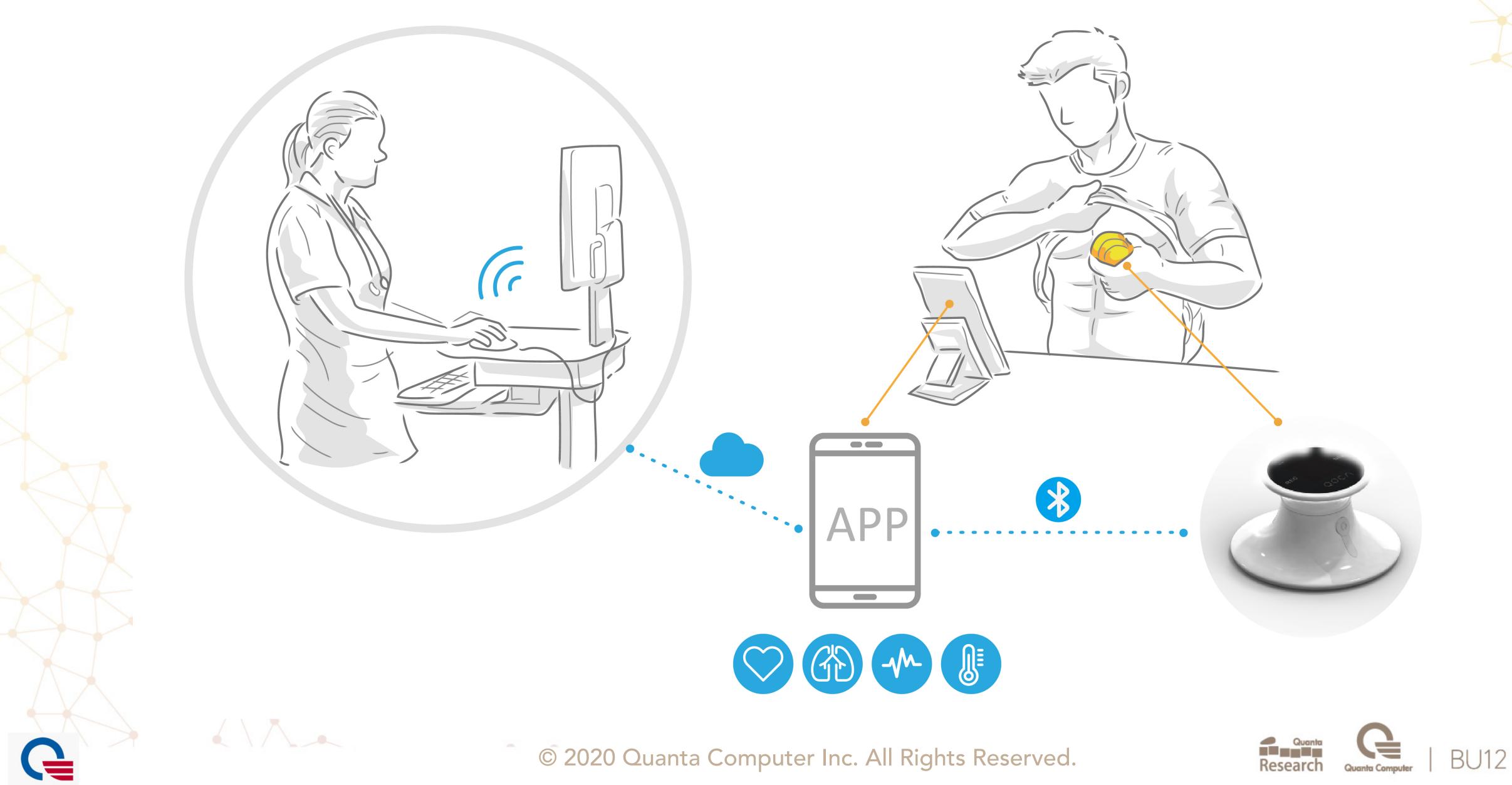








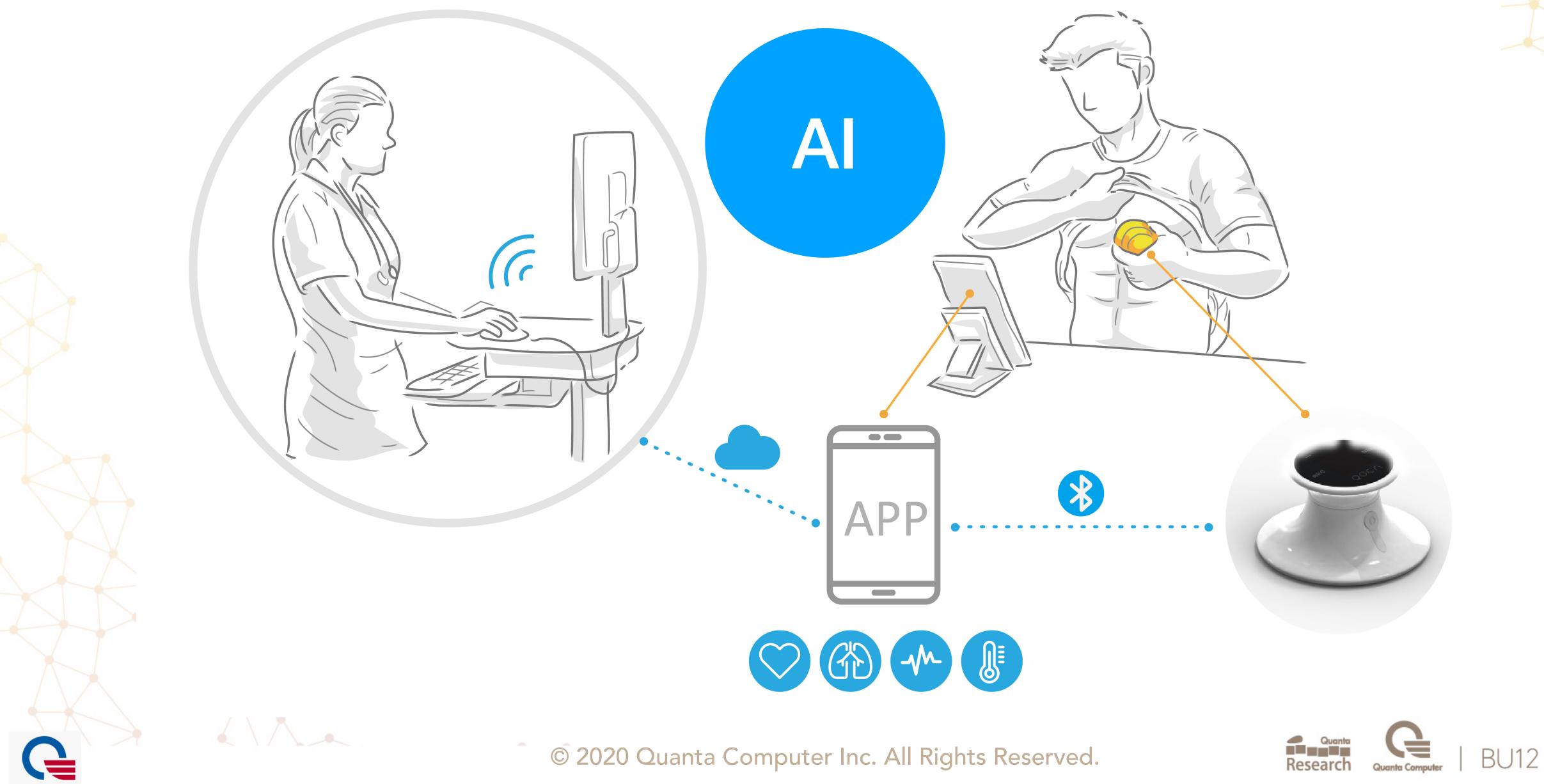
QUARANTINED AT HOME







AI ENABLED REMOTE HOME CARE





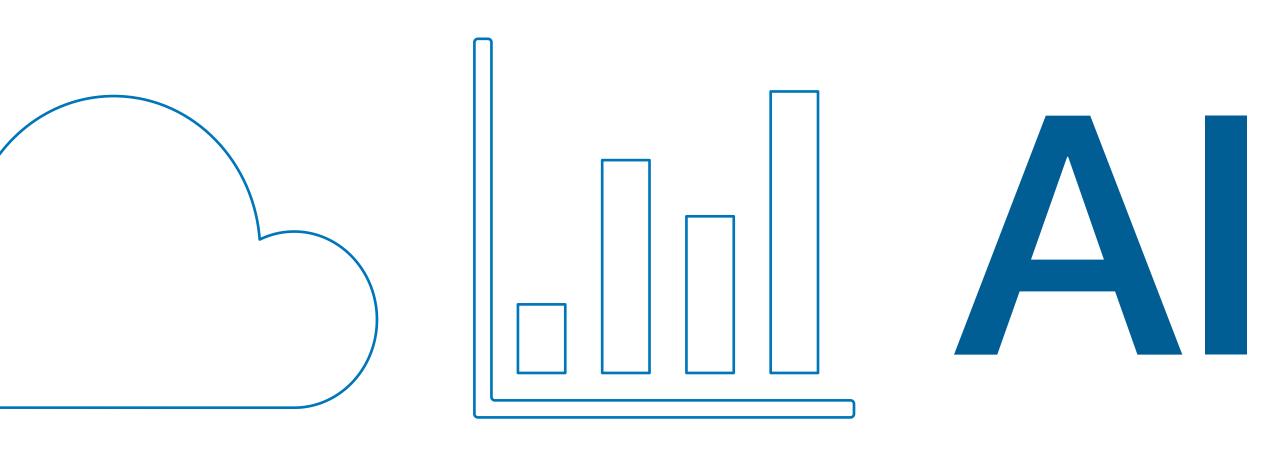


Medical Device as a Smart Service





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THE BEST WAY TO PREDICT THE FUTURE IS TO INVENT IT

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