



A wave of change: Implementing Pharmacogenomics in BC

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Chief Scientific Officer and VP Sectors





Precision Health Care



Genome BC cumulative investment in **145 projects** • **53** active
Total **\$352.5M**: Genome BC **\$69.3M** with co-investment **\$283.2M**

Prevention

Diagnosis

Treatment

Prognosis

GENOMICS



First Nations
Biobank



Prenatal
Screening



RapidOMICS



Genomics for
pharmacists



Biomarkers for COPD
Management

2017 Large Scale Applied Research Project Competition Stats

6/15

awards went to BC led projects

38%

of funds invested by Genome Canada and Canadian Institutes for Health Research

2/15

awards went to BC co-led projects

\$80.3M

Total investments when combined with Genome BC's contribution

Pharmacogenomic Services in Community Pharmacy

Corey Nislow, UBC; Derek Desrosiers, BCPhA

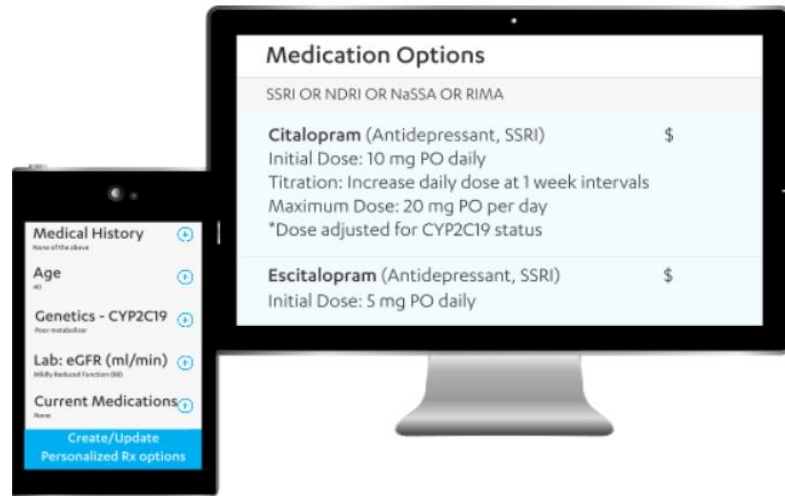
Budget: \$250K



- Develop a report determining efficacy and dosage for specific medications patients are taking for: mental health, cardiac issues and pain
- System to store actionable results, accessible to the patients and to their health care providers
- Training for community pharmacists

The Implementation of Pharmacogenomics into Primary Care in British Columbia

Martin Dawes, UBC; Brendan Byrne, TELUS Health; Pieter Cullis, UBC
Budget: \$722K



- Developed and tested a decision support tool, TreatGx
- Created drug/dose options accounting for patient characteristics, drug-drug interactions, drug adverse reaction profiles, and pharmacogenetics
- GenXys UBC spin-out company

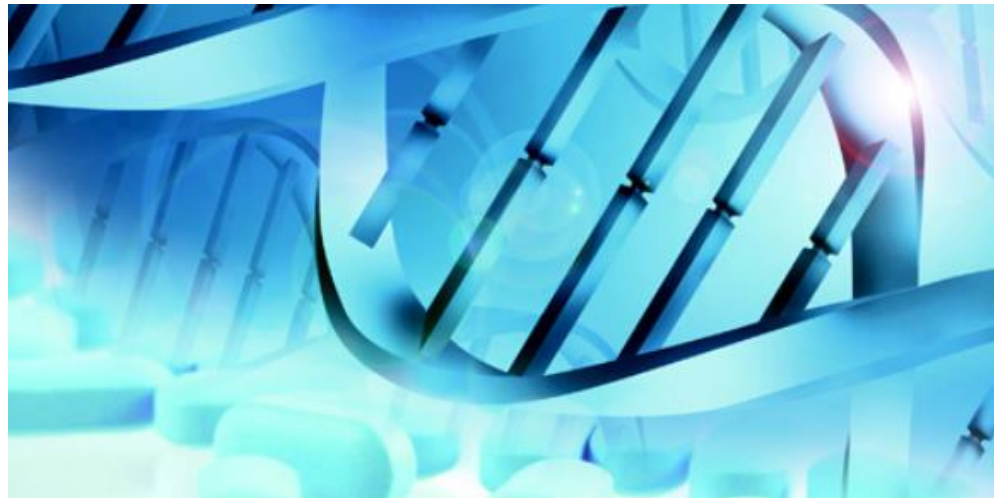
Integrating Pediatric Pharmacogenomic Testing into the Canadian Health Care System

Bruce Carleton, UBC; Yvan Cote, Dynacare

Budget: \$2.96M

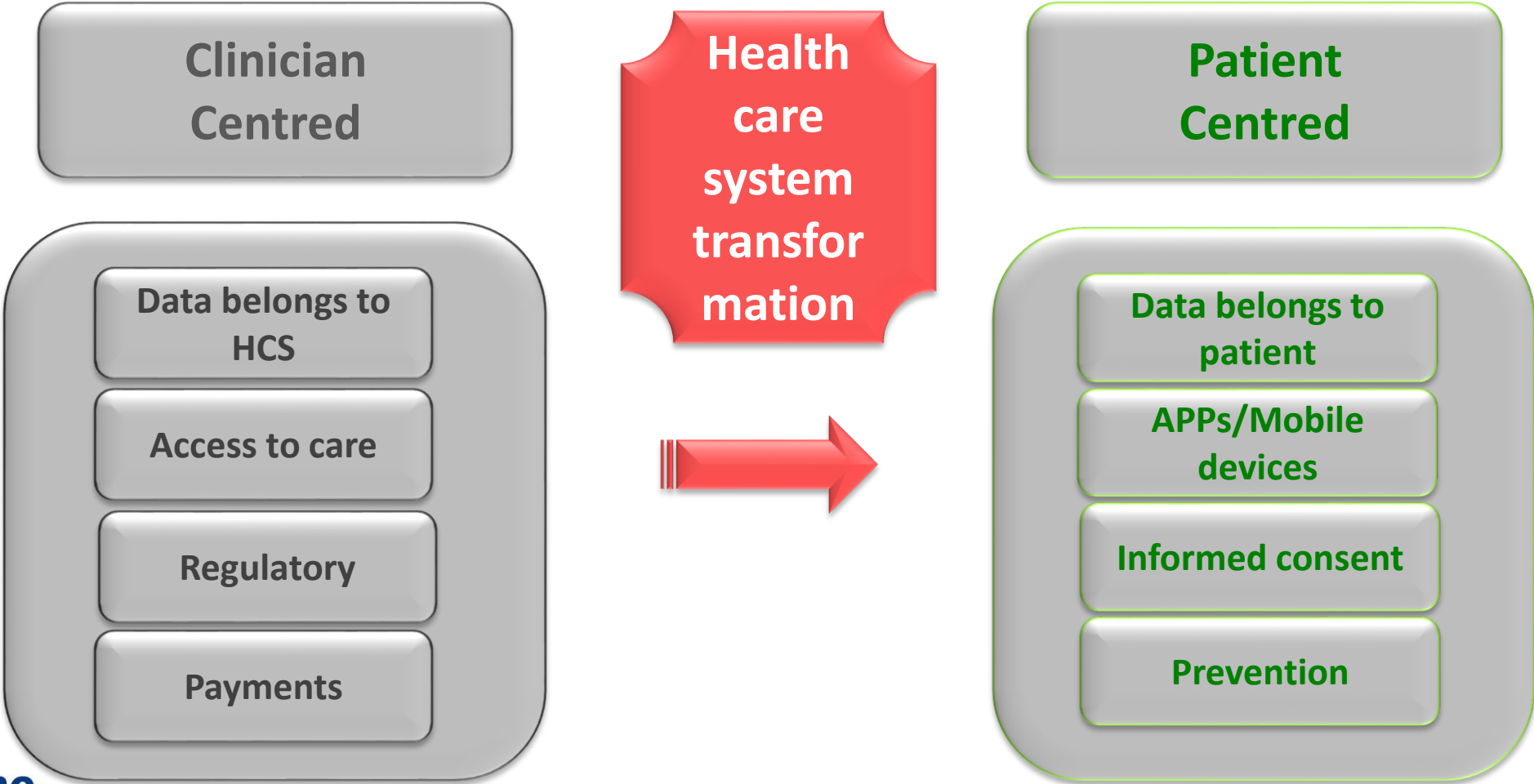


Dynacare®

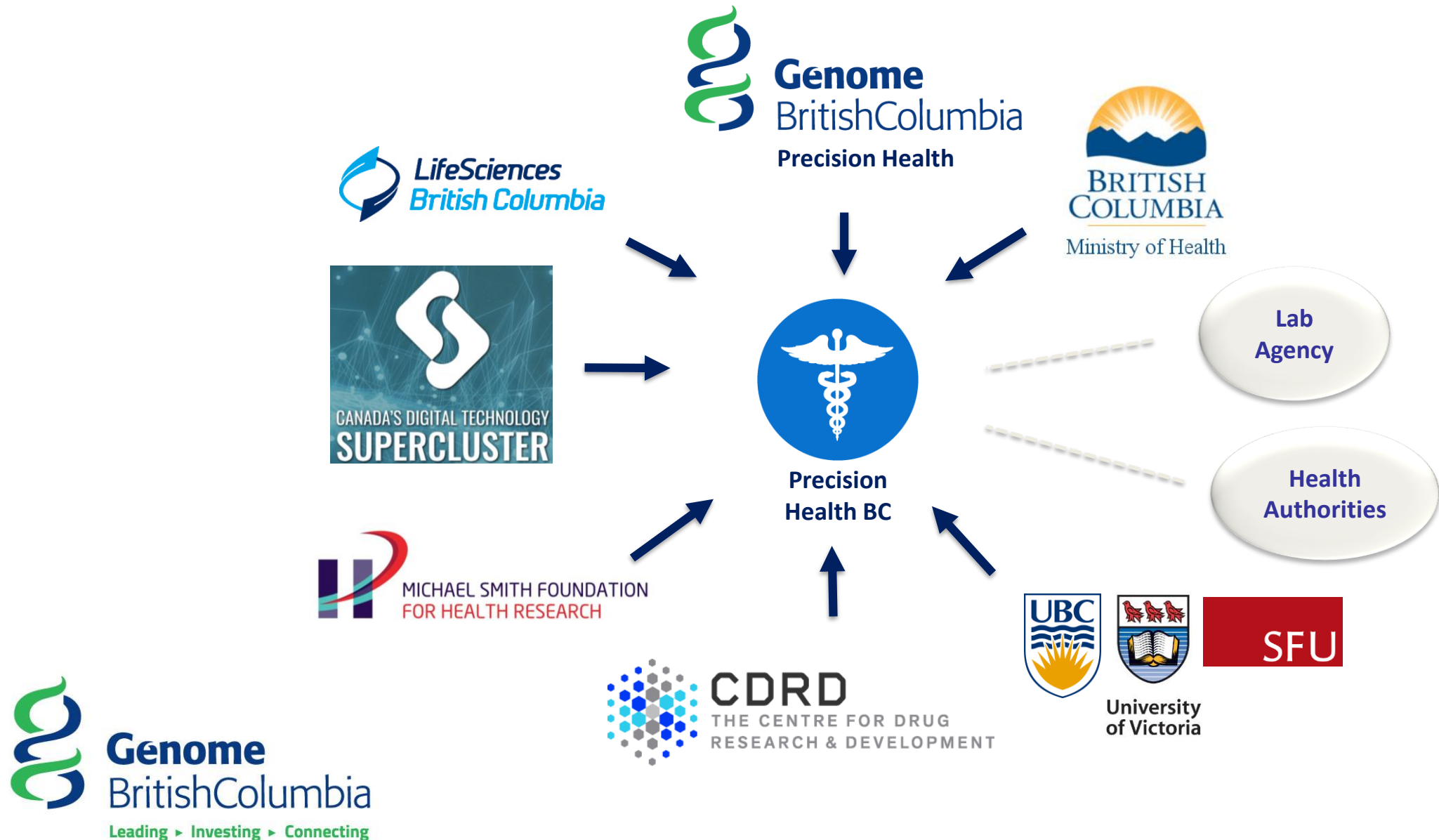


- Will provide a service (Dynacare) that is user-friendly, actionable with the opportunity for engagement and dialogue to personalize therapeutic decision-making and reduce ADRs
- Three pharmacogenomics panels: analgesics, antibiotics and mental health
- PGx smartphone application

Transformational potential of Pharmacogenomics



We Need Better Integration of PGx Initiatives





Genome British Columbia

Leading ▶ Investing ▶ Connecting



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