IHEC Data Portal Presentation for InTBIR

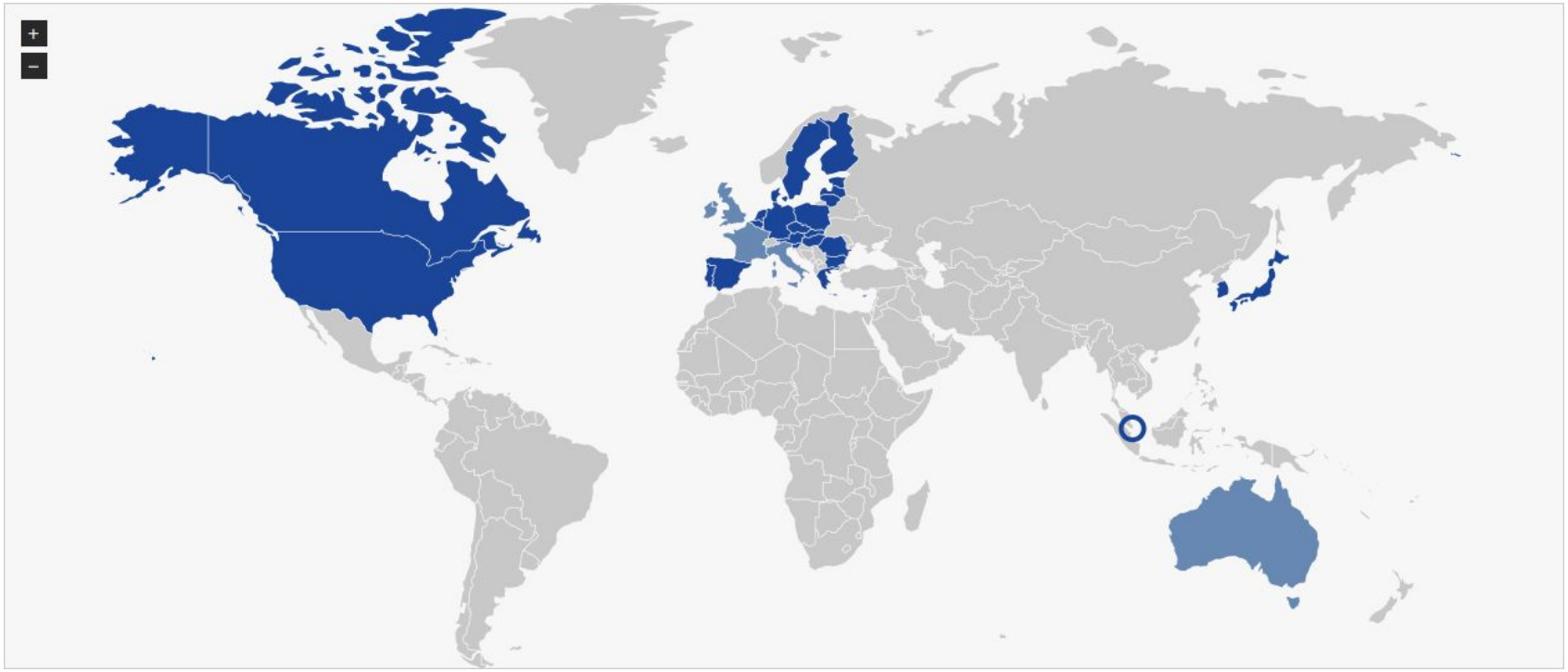
David Bujold

2016-04-29

IHEC
Data Portal

What is IHEC?

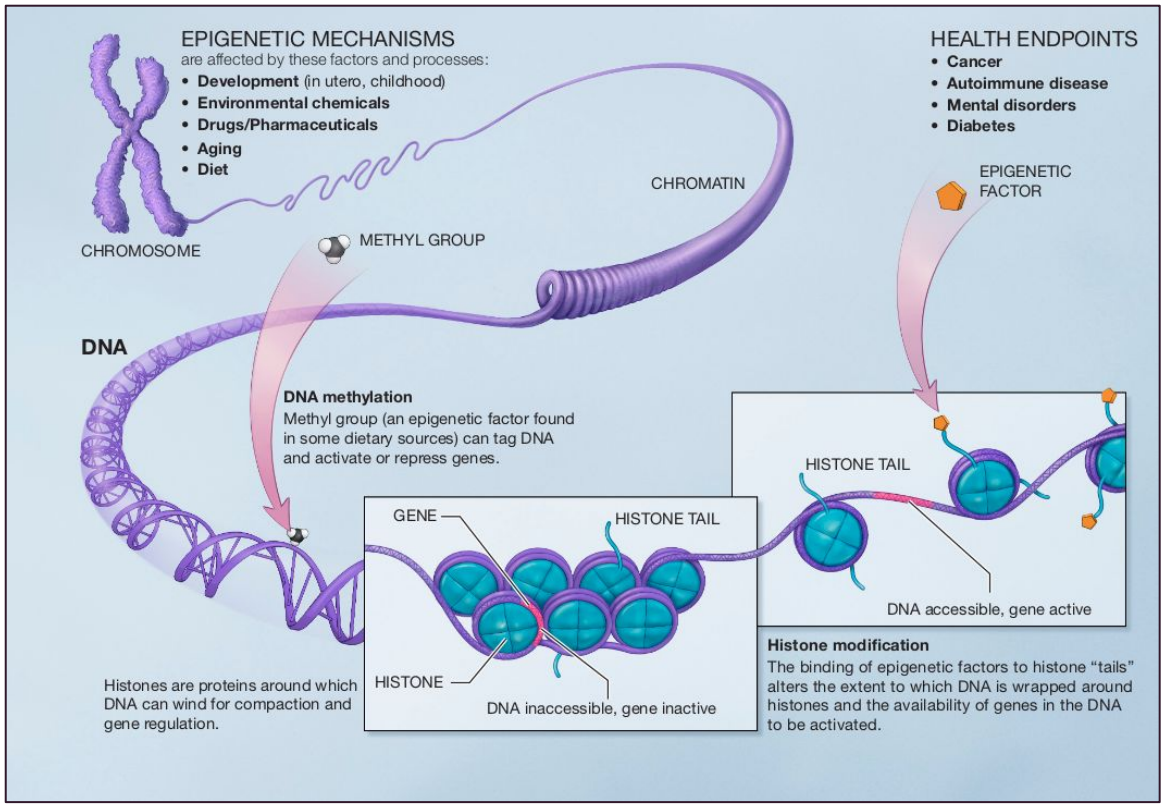
- International effort with several funding agencies. Member groups:
  - take part in committees working on standards (assay, data/metadata distribution, ethics…)
  - commit to adhere to these standards
- Goal: Providing reference epigenomes for a variety of normal and disease tissues



Source: IHEC website (http://www.ihec-epigenomes.net)

What is epigenomics?

- Study of epigenetic modifications (EM) on genetic material of cells
- EM: Reversible modifications on cell DNA or histones
  - Affect gene expression without altering DNA sequence
  - Partly inherited, partly imputable to environment
- Types of modifications:
  - DNA methylation
  - Histone modifications



Commonfund.nih.gov, (2014). Epigenomics - Epigenetic Mechanisms. [online]

IHEC Data Portal

- Goal of the Portal: Integrate epigenomic **public** datasets produced within the International Human Epigenome Consortium
  - Raw data is in controlled access repositories
- Launched in June 2014
- As of April 2016, hosts over 7,000 human datasets
- Currently holding data from 7 consortia, others coming soon