A community effort for COVID-19 Ontology Harmonization

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NIH/NHGRI
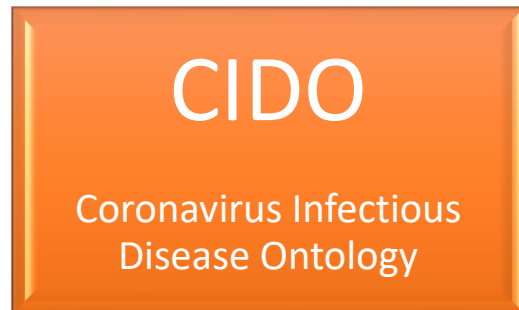
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The community

:: Yongqun "Oliver" He
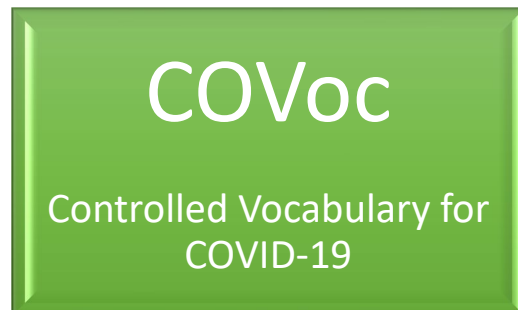:: William Duncan
:: Asiyah Yu Lin, and et.al

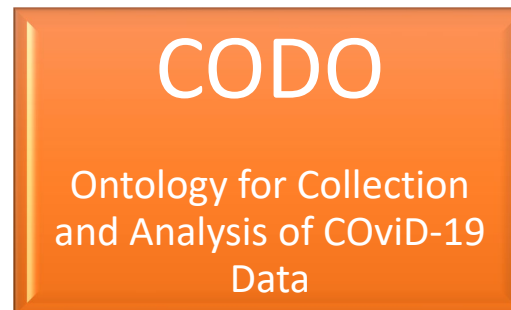:: Yuki Yamagata
:: Tatsuya Kushida
:: Hiroshi Masuya

:: John Beverley
:: IDO team

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:: IDO team

CIDO
Coronavirus Infectious Disease Ontology

HOIP
Homeostasis imbalance process ontology

VIDO
Virus Infectious Disease Ontology

COVID-19-IDO
VIDO extension

COVoc
Controlled Vocabulary for COVID-19

CODO
Ontology for Collection and Analysis of COviD-19 Data

MAxO
Medical Action Ontology
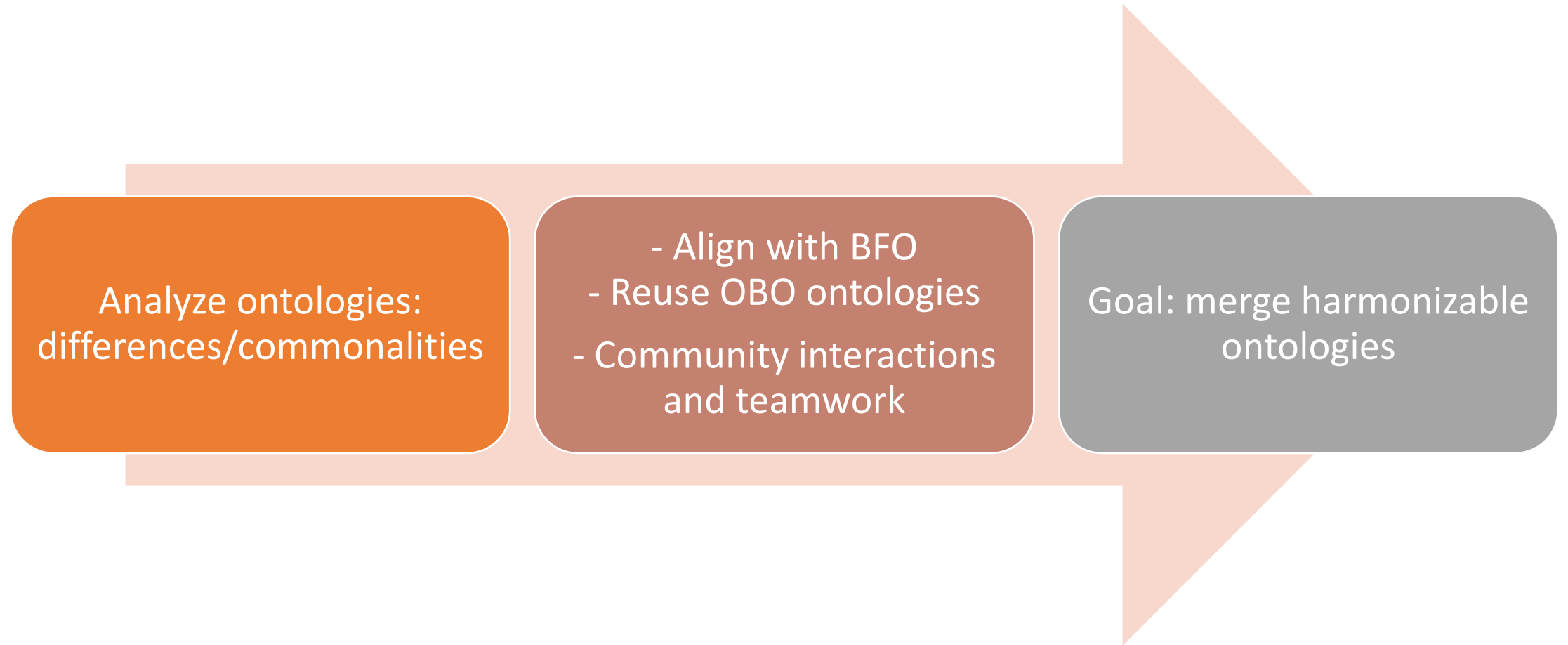
:: Zoë May Pendlington
:: Paola Roncaglia

:: Biswanath Dutta
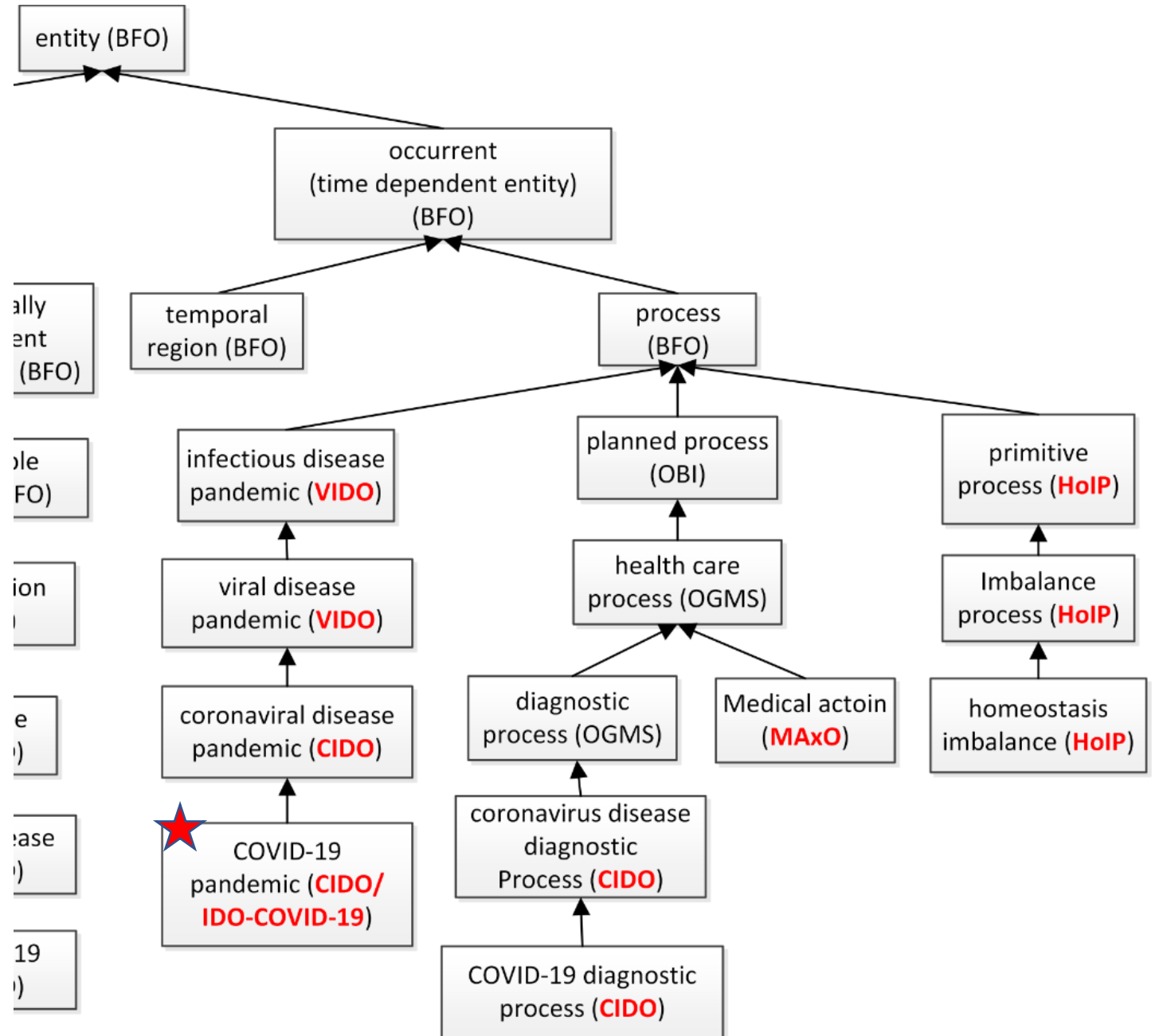:: Michael DeBellis

:: Leigh C. Carmody

Motivation: as a community, produce as little ontologies as possible for end users.

Achievements

- CIDO and IDO-COVID-19 merged.
- VIDO and CIDO/IDO-COVID-19 harmonized.
- COVoc submits and reuses CIDO terms.
- HoIP mapping to CIDO.
- CODO aligning to BFO.
- Built a collaborative community aims to harmonization for COVID-19 ontologies

Next Step

- Continue current harmonization process:
  - Tier 1: merge harmonizable ontologies
  - Tier 2: build BFO conformed/aligned ontologies
  - Tier 3: interoperable ontologies (non-BFO and BFO based)
- Reach out to other similar efforts
  - covid19-epidemiology-ontology (CEMO): Epidemiology and monitoring ontology for COVID-19
  - Genomic Epidemiology Ontology (GenEpiO)
- Welcome to join us!
  - https://github.com/CIDO-ontology/COVID-19-ontology-harmonization/issues