

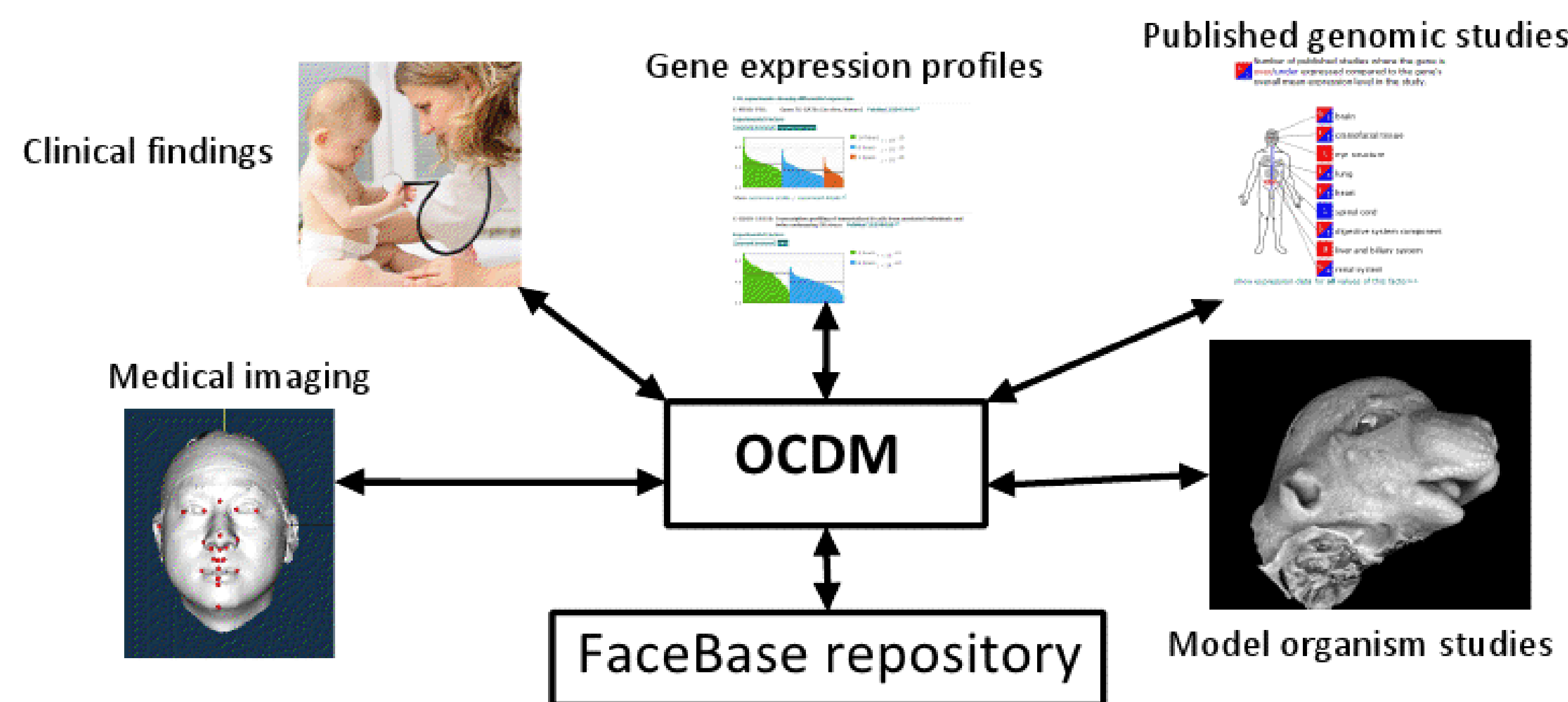
# Craniofacial Mouse Ontology & Craniofacial Human-Mouse Mappings Ontology

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## 1. Introduction

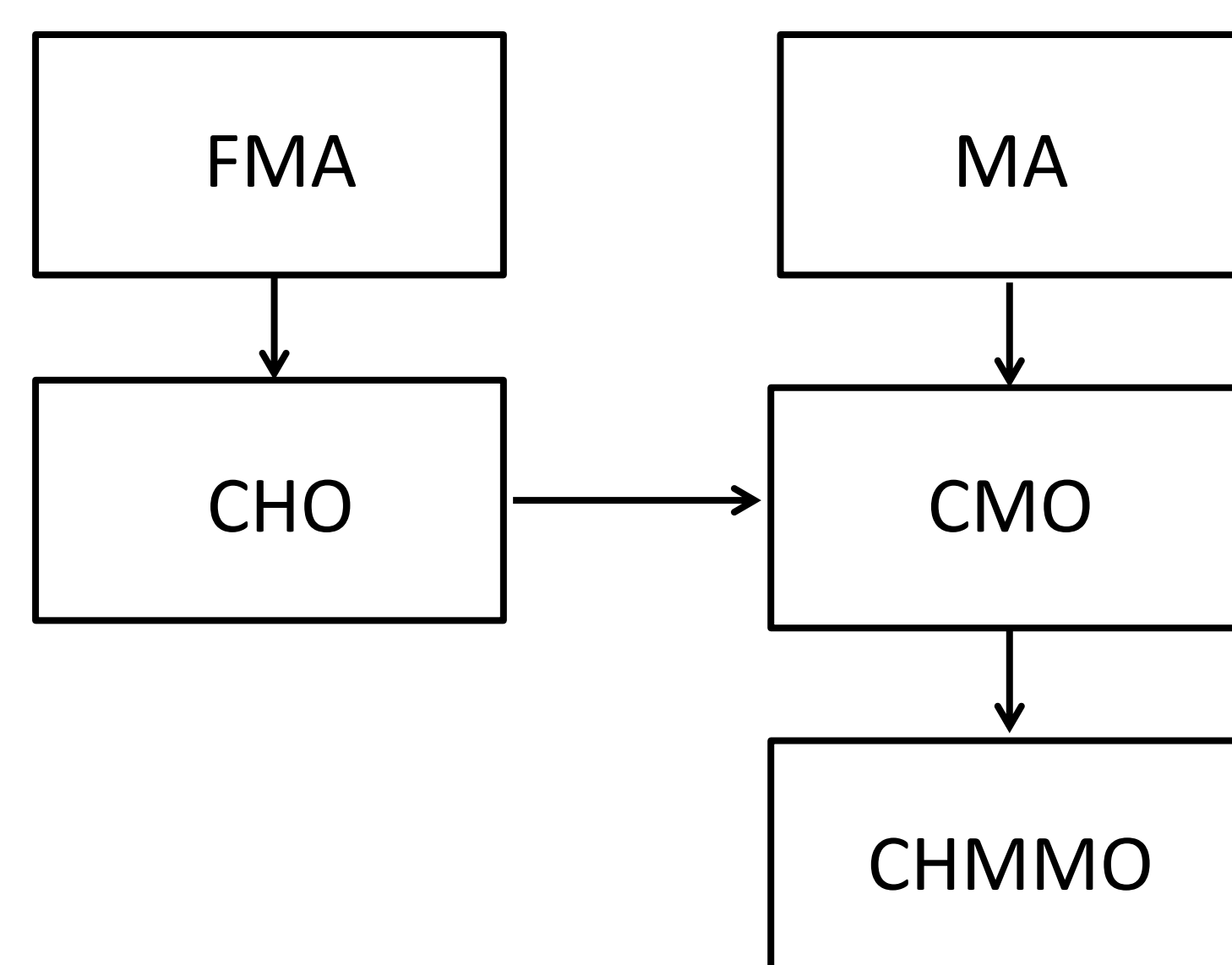
- OCDM: application ontology to serve as unifying framework for integrating multiple forms of data generated by different members of the FaceBase Consortium
- Craniofacial Human Ontology (CHO), the Craniofacial Mouse Ontology (CMO), and the Craniofacial Human to Mouse Mapping Ontology (CHMMO): components of OCDM
- CMO: Craniofacial Mouse Ontology: ontology of mouse craniofacial structures
- CHMMO: Craniofacial Human-Mouse Mapping Ontology: mappings of mouse structures to homologous human structures



## 2. Data sources

- CHO: Craniofacial Human Ontology subset of Foundational Model of Anatomy
- Mouse Anatomy Dictionary: Jackson Laboratories
- PubMed literature on translational research

## 3. Methodology



## 4 Validation

- Programmatically generated anatomical structures and mappings are validated by domain experts
- False positives are removed from the knowledge base, and false negatives fixed by adding needed structures (examples: "snout", "vibrissae")

Entity Confidence	
high	
Expert Reviewer <input checked="" type="checkbox"/> Reviewed By Expert	
Tim Cox	

## 5 Results

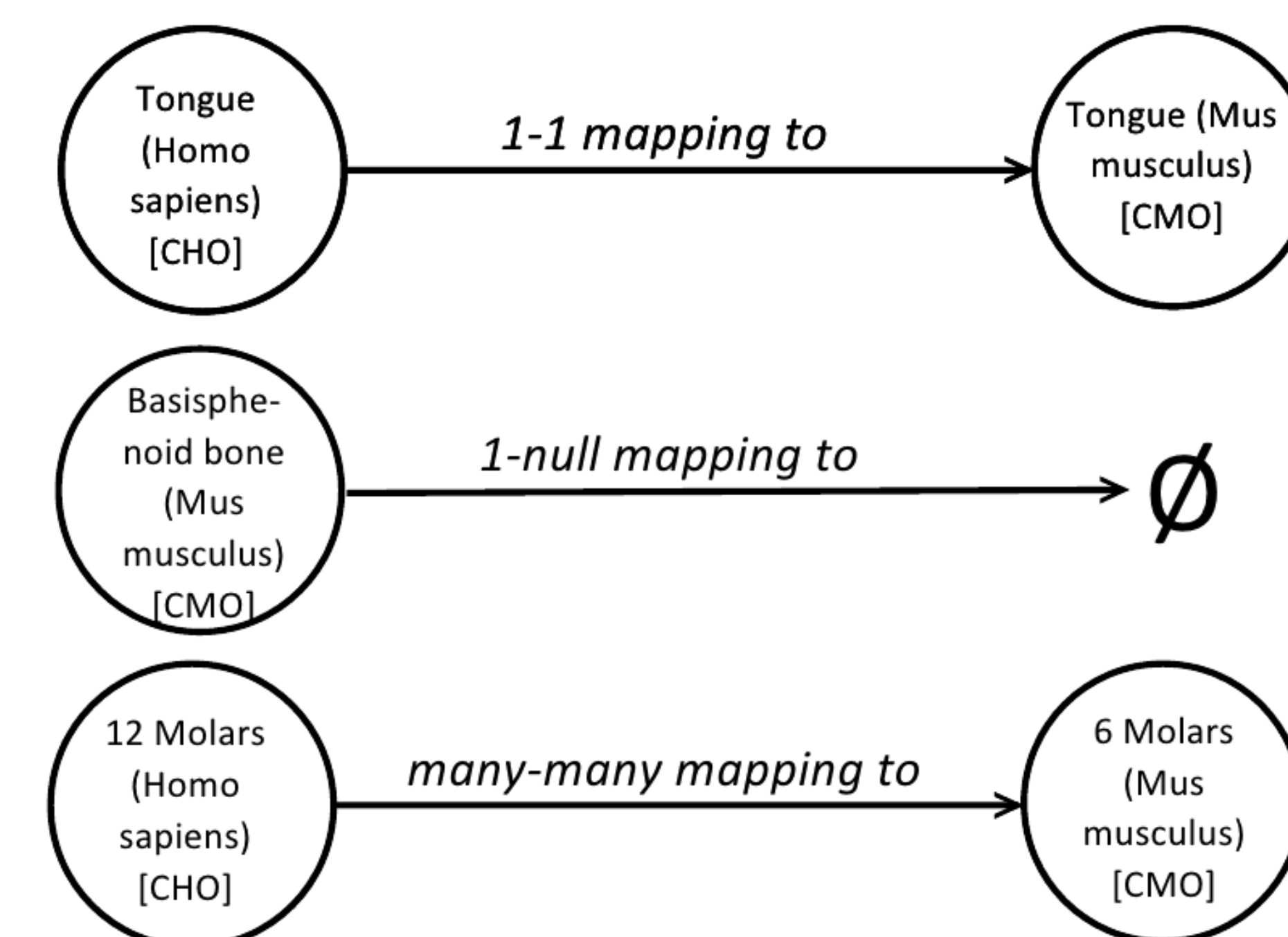
### CMO

- Bone organ (Mus musculus)
  - ▶ Flat bone (Mus musculus)
    - ▶ Irregular bone (Mus musculus)
      - ▶ Auditory ossicle (Mus musculus)
      - ▶ Hyoid bone (Mus musculus)
      - ▶ Inferior nasal concha (Mus musculus)
      - ▶ Lacrimal bone (Mus musculus)
      - ▶ Mandible (Mus musculus)
      - ▶ Palatine bone (Mus musculus)
      - ▶ Pneumatized bone (Mus musculus)
        - ▶ Ethmoid (Mus musculus)
        - ▶ Maxilla (Mus musculus)
          - ▶ Left maxilla (Mus musculus)
          - ▶ Right maxilla (Mus musculus)

### CHMMO

Mapped By FMA Class	
Maxilla	
Mapped By FMAID	
9711	
Mapping Confidence	
high	

## Mapping types



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