

# **AUTOMATED ANNOTATION OF NGS TRANSCRIPTOME DATA USING ISGA AND ERGATIS**

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Keeping up with next-generation sequencing data requires the use of automated analysis pipelines



Ergatis is a(n awesome) workflow management tool for designing and running such pipelines

<http://ergatis.sourceforge.net/>

**Ergatis: A web interface and scalable software system for bioinformatics workflows**

*Orvis et al.* (2010) Bioinformatics



ISGA is a Biologist's tool for running  
and customizing Ergatis pipelines  
previously designed by experts

<http://isga.cgb.indiana.edu/>

**An Ergatis-based prokaryotic genome annotation web server**

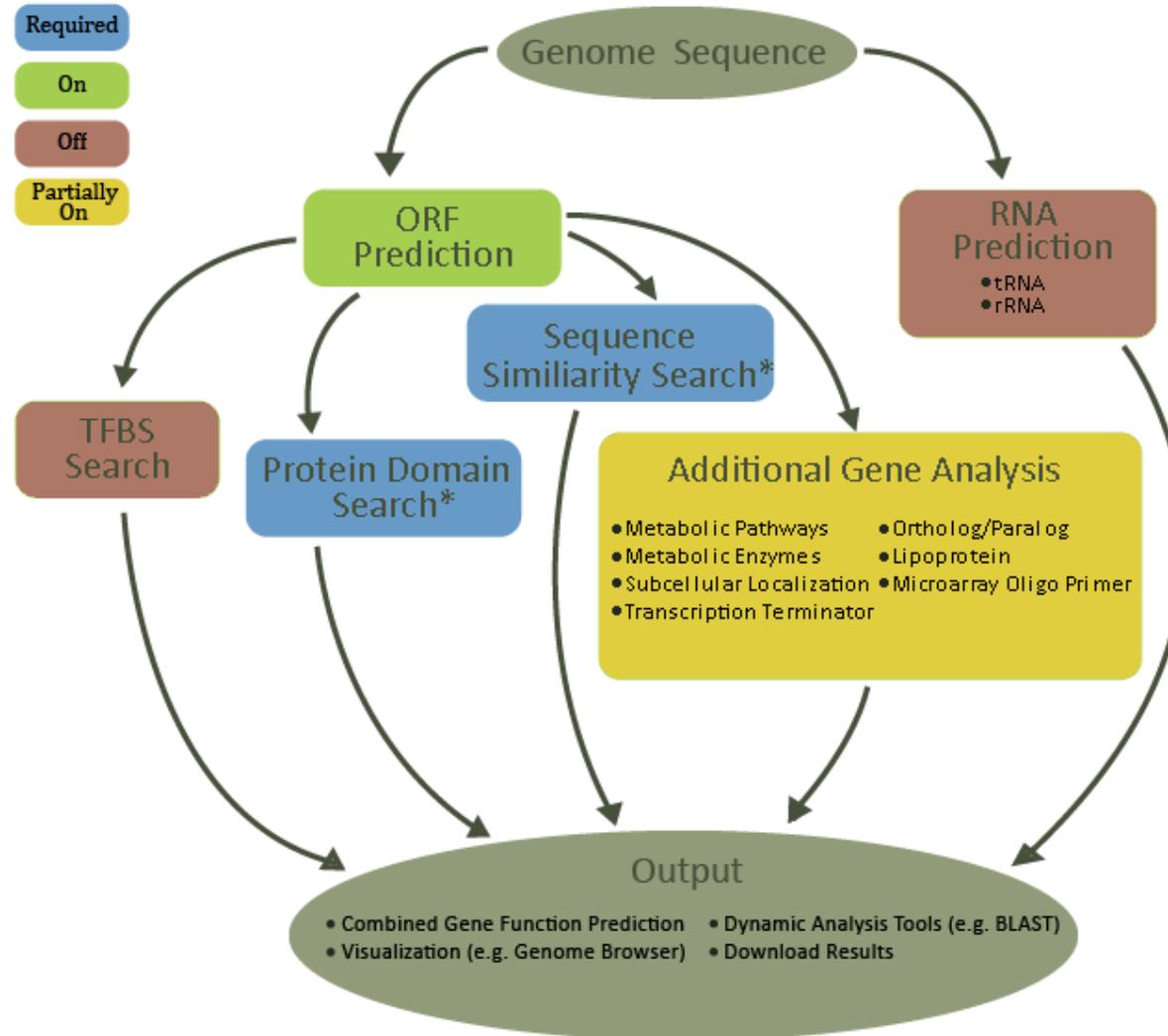
*Chris Hemmerich, Aaron Buechlein, Ram Podicheti, Kashi Revanna &  
Qunfeng Dong, (2010) Bioinformatics*



# chemmeri Pipeline 4

Template Pipeline: **Prokaryotic Annotation Pipeline**

Created At: Apr 02, 2010 11:48



# Pipeline Building: Edit Parameters

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## BLASTP vs COG

### Required Parameters

Scoring Matrix <span>?</span>	<input type="text" value="BLOSUM62"/> *
e-value <span>?</span>	<input type="text" value="1e-5"/> *
BLAST Filter <span>?</span>	<input type="text" value="none"/> *
Number of Matches <span>?</span>	<input type="text" value="150"/> *
Number of Descriptions <span>?</span>	<input type="text" value="150"/> *
Maximum number of GSPs <span>?</span>	<input type="text" value="5"/> *

### Optional Parameters +

Cancel

Reset Form

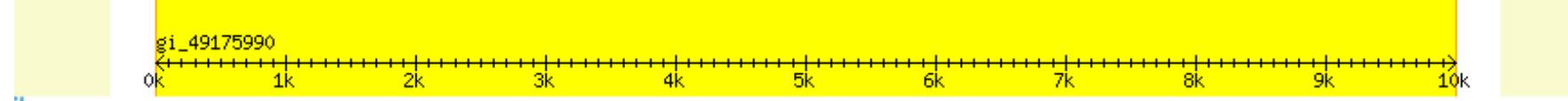
Save Parameters



# Viewing 10 kbp from gi\_49175990, positions 1 to 10,001

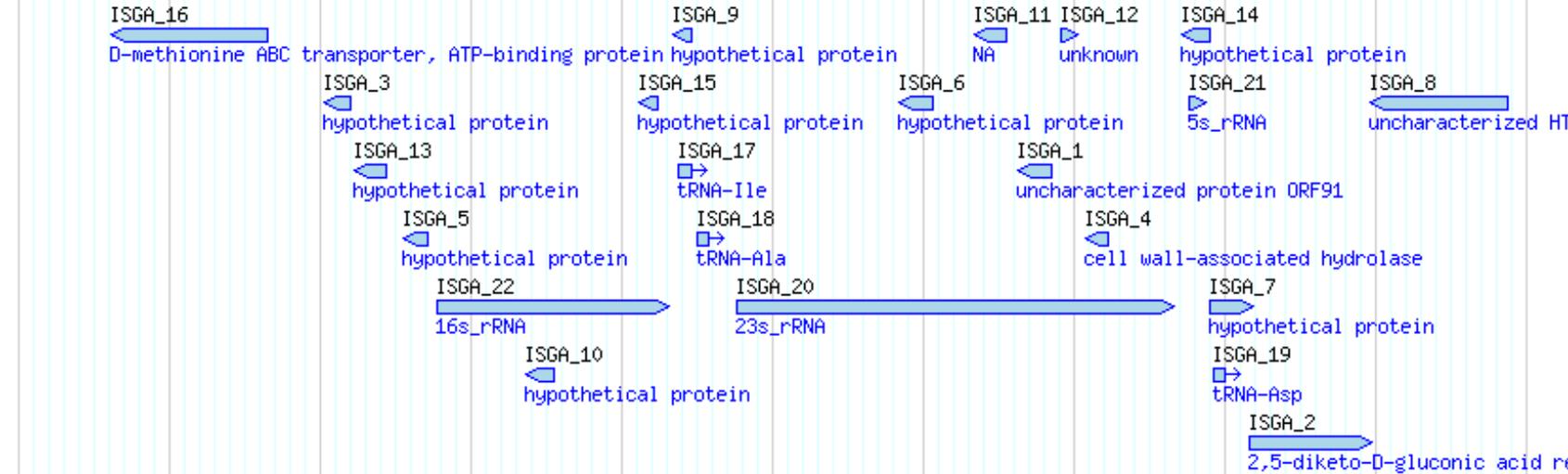
**Actions**  
[Mark this](#) [\[Upload your own data\]](#) [\[Show banner\]](#) [\[Share these tracks\]](#) [\[Link to image\]](#) [\[Help\]](#) [\[Reset\]](#)

[Change view](#)



[Details](#)

### Gene Model



### CDS



### tRNA



### rRNA

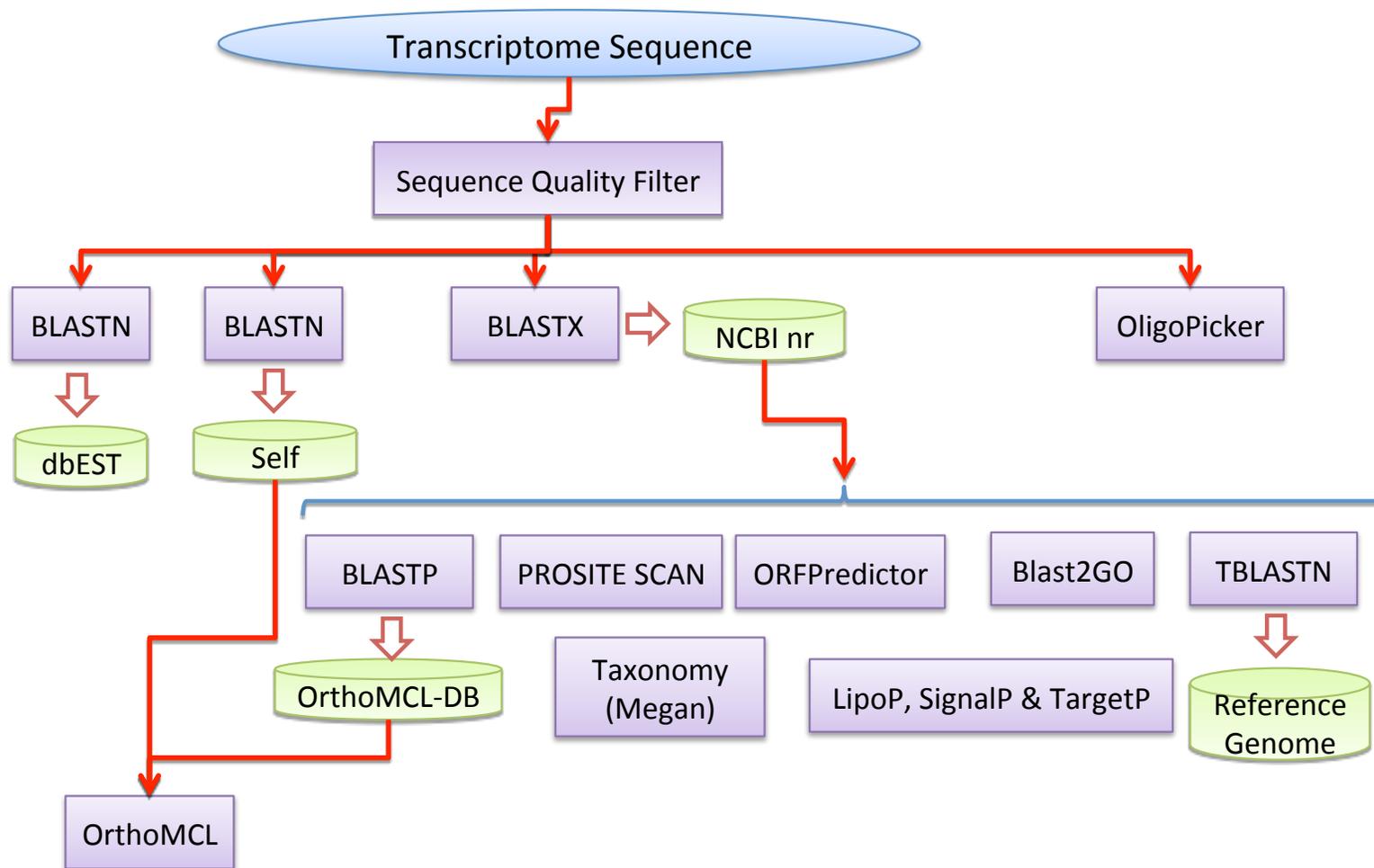


# INTEGRATIVE SERVICES FOR GENOMIC ANALYSIS

- Account system protects user data and enables easy retrieval of previous results
- Integrated visualization, query, and analysis tools to explore pipeline results
- File upload and download managed through browser
- ISGA pipelines can be run in Ergatis



# TRANSCRIPTOME PIPELINE

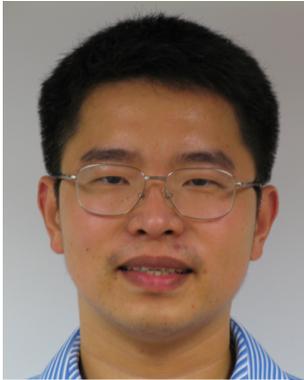


Transcriptome pipeline is running in Ergatis. We are optimizing performance and evaluating additional functionality.

[isga-users@sourceforge.net](mailto:isga-users@sourceforge.net)



# CREDITS



Qunfeng  
Dong



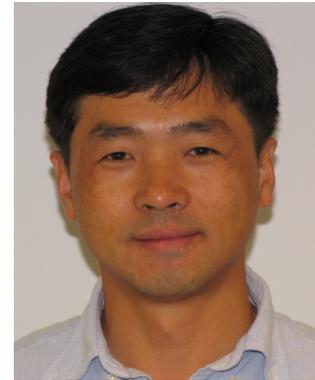
Aaron  
Buechlein



Ram  
Podicheti



Kashi  
Revanna



Jeong-Hyeon  
Choi



Haixu  
Tang

