Presentation of the Conflict Resolution Task

Julien Jourde, Wednesday 3rd June 2009

Transys – Training Session

B. subtilis gene names : some figures

- We try to integrate data from **7** different data soures

- There are many variations between them :

Databases	BSU	BG	Names	rRNA	tRNA	Releases
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Stability between databases ?

• There are only **193** couples (bsu,names) existing at the same time in all databases. (All databases represent 7787 names)

• Few informations about tRNA and rRNA are recent and in only 2 databases.

• **Swissprot** and **Genome Reviews** try to update similar data (the new BSU is the same one).

• **GenoList** is completely different. It contains the last annotation of the genome :

- **70** BSU/BG ids have been deleted.
- **208** BSU (without BG ids) have been added.
- Pseudogenes are now annotated and have several BSU ids :

BSU06073	ydzW	putative phosphomannomutase; C-terminal part of YdzW
BSU06074	ydzW	putative phosphomannomutase; internal part of YdzW
BSU06076	ydzW	putative phosphomannomutase; internal part of YdzW
BSU06077	ydzW	putative phosphomannomutase; internal part of YdzW
BSU06078	ydzW	putative phosphomannomutase; internal part of YdzW
BSU06079	ydzW	putative phosphomannomutase; internal part of YdzW
BSU06083	ydzW	putative phosphomannomutase; N-terminal part of YdzW

Conflicts between databases !

- Characterization of the different conflicts ?

  - One name missing in only one base
  - One name missing in N bases
  - One name missing or not and reused for others BSU
  - One name missing or not, used in different BSU in different bases
  - ...

Many possibilities. **One of your task will be to characterize many conflicts as you can**.

Strategy used to cure the base

- Database files :

  - **BSU00010** BG10065 **dnaA** **dnaH** **dnaJ** **dnaK**
  - **BSU00020** BG10066 **dnaN** **dnaG** **dnaK**
  - **BSU00030** BG10067 **yaaA**

- Strategies ?

  - Find current name AND synonyms at the same time.

  - Cure in two times :

    1. Find all synonyms for each BSU (with **dates of renaming** !)
    2. Determine which name is the current one

Where to find decisive evidences ?

Another task for you today will be to design an effective method to find evidences.

You can use databases :

- BSORF
- GenBank
- KEGG
- GenoList
- Swissprot
- Gene lists
- ...

You can use tools :

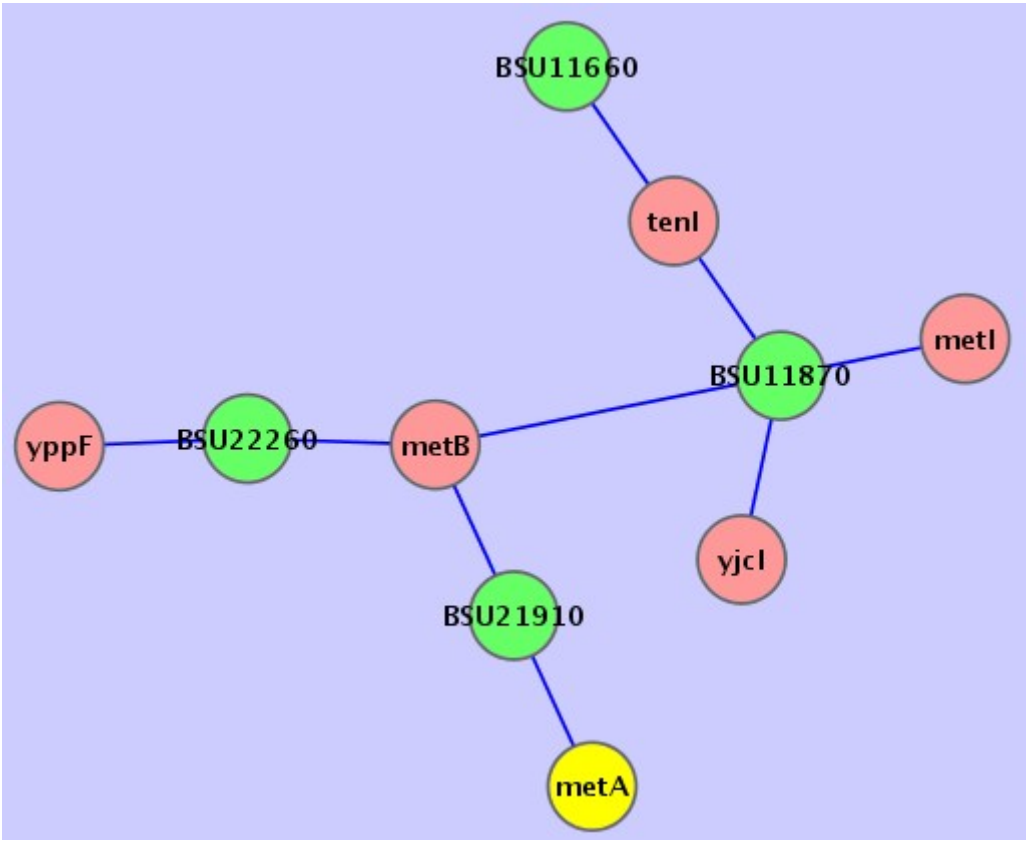
- PubMed
- Google Scholar
- Blast
- ...

A simple case to start

We selected **3** names which are not reused and are missing in **BSORF** only :

- **BSU15600** cysC
- **BSU34990** gerF
- **BSU21910** metA

When it will be done, you will be able to extend your work to the other synonyms of those BSU. It's the only way to do : go step-by-step

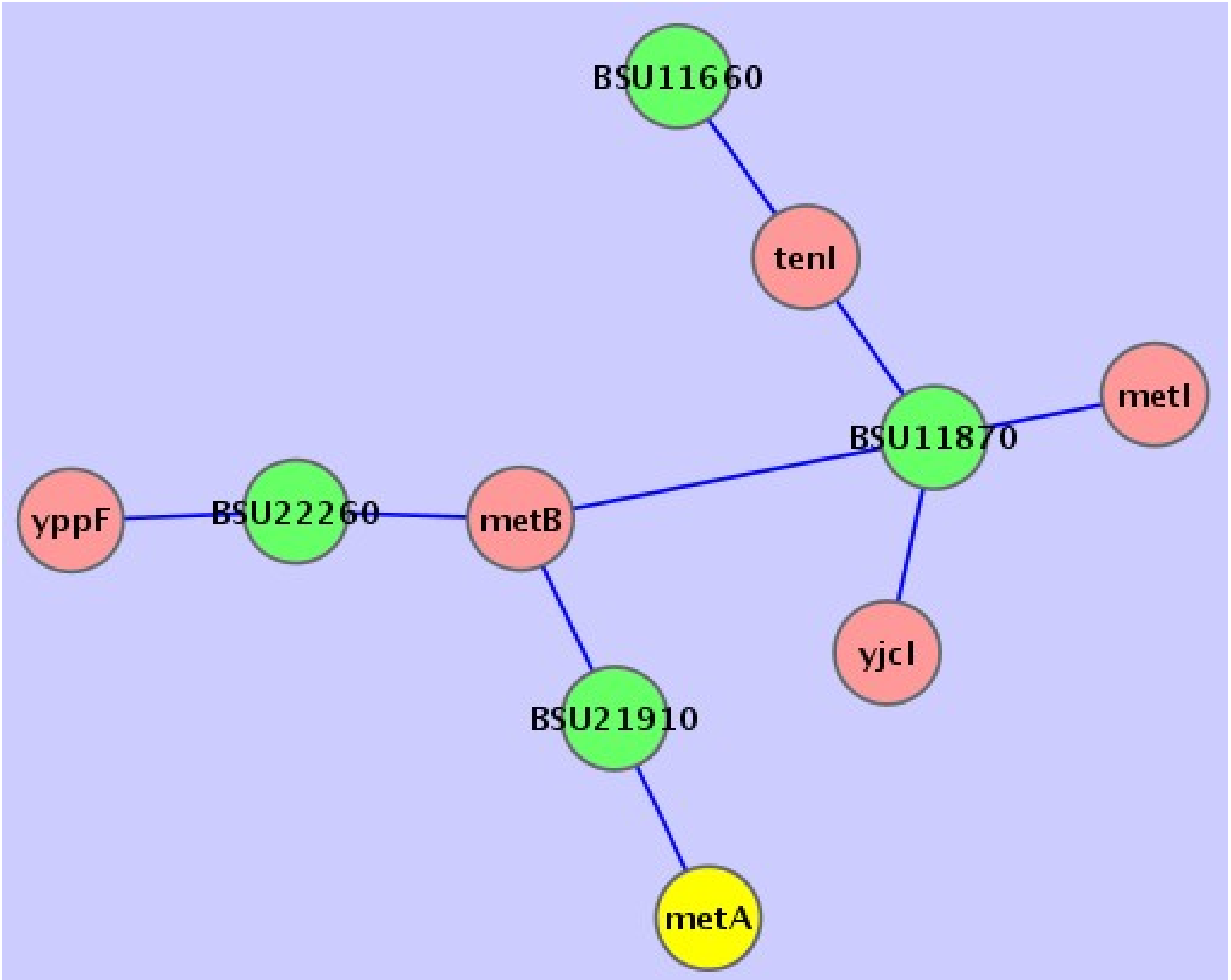


Exercise 1

BSORF	BSU15600	BG13379	cycC	ylnC	
Genetic Map	BSU15600	BG13379	pyrE	pyrX	**cysC**
EloAnn	BSU15600	BG13379	**cysC**	ylnC	
GenBank	BSU15600	BG13379	**cysC**	ylnC	
Genome Rev	BSU15600	BG13379	**cysC**	ylnC	
GenoList	BSU15600	BG13379	**cysC**	ylnC	
Swissprot	BSU15600	BG13379	**cysC**	ylnC	

BSORF	BSU34990	BG12611	lgt		
Genetic Map	BSU34990	BG12611	**gerF**		
EloAnn	BSU34990	BG12611	lgt	**gerF**	yvoC
GenBank	BSU34990	BG12611	lgt	**gerF**	yvoC
Genome Rev	BSU34990	BG12611	lgt	**gerF**	yvoC
GenoList	BSU34990	BG12611	lgt	**gerF**	
Swissprot	BSU34990	BG12611	lgt	**gerF**	

BSORF	BSU21910	BG11534	metB	
Genetic Map	BSU21910	BG11534	**metA**	
EloAnn	BSU21910	BG11534	**metA**	metB
GenBank	BSU21910	BG11534	**metA**	metB
Genome Rev	BSU21910	BG11534	**metA**	metB
GenoList	BSU21910	BG11534	**metA**	metB
Swissprot	BSU21910	BG11534	**metA**	metB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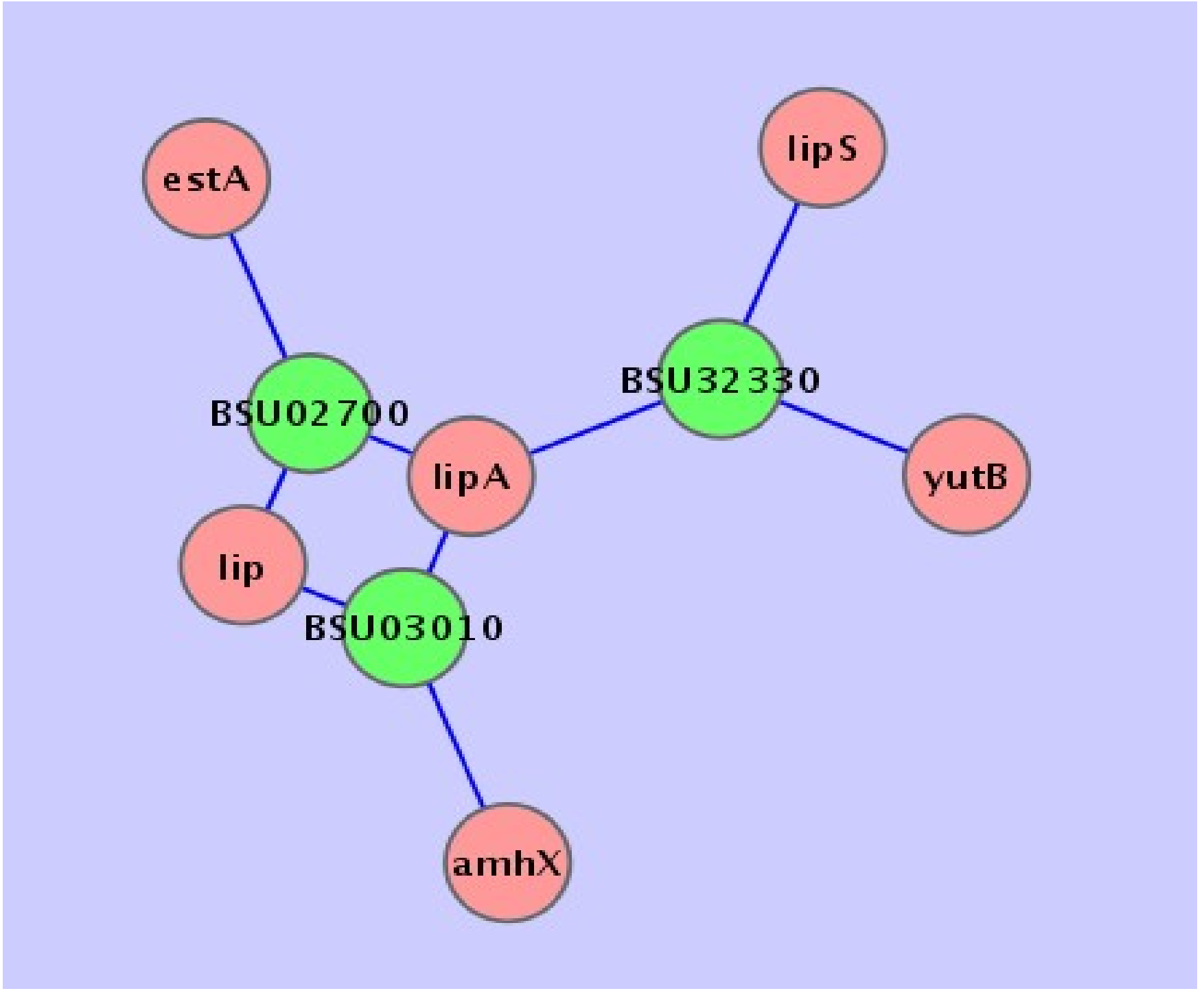
metI
BSU11870
yppF
BSU22260
metB
yjcI
BSU21910
metA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yutB
lip
BSU03010
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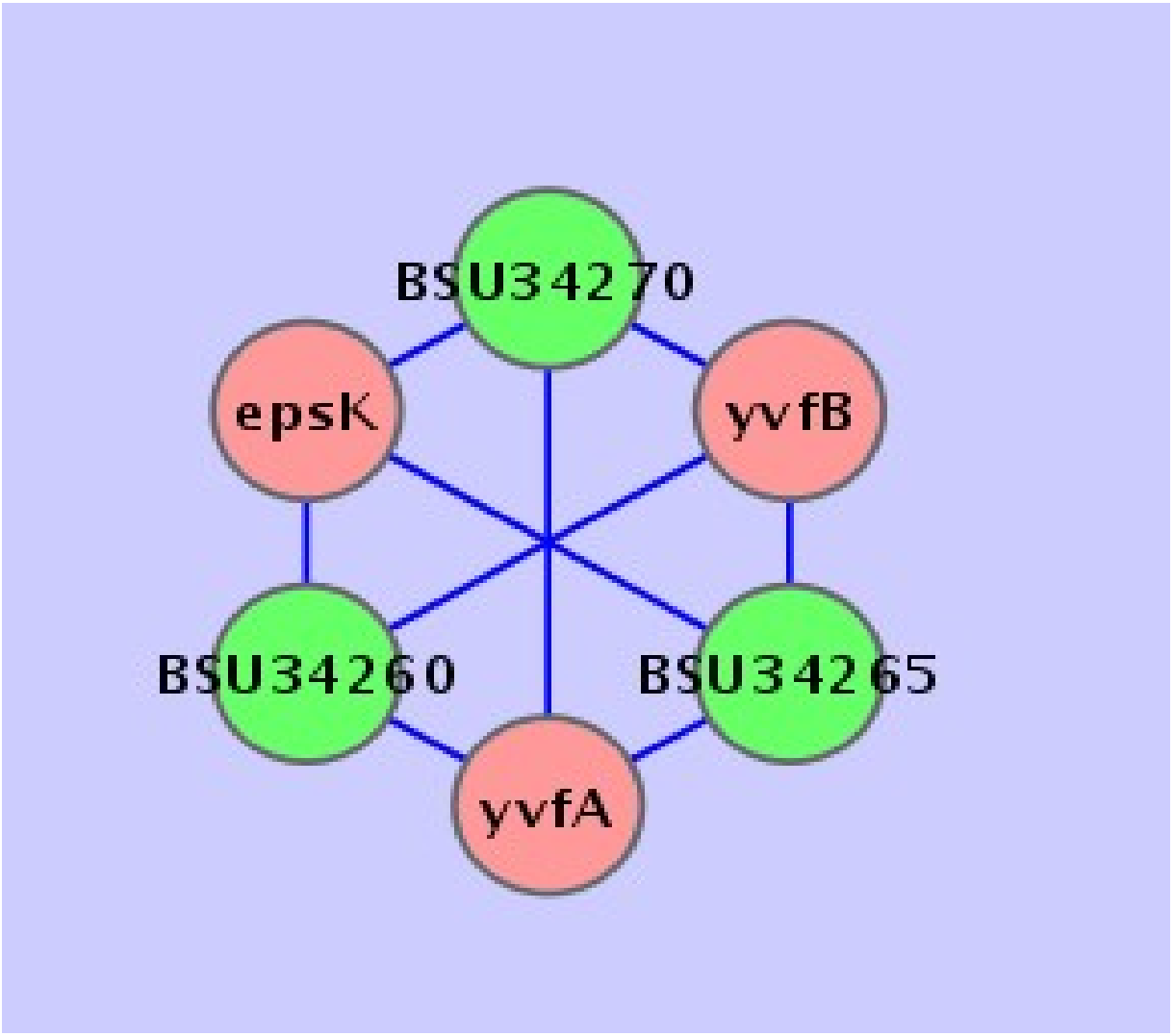
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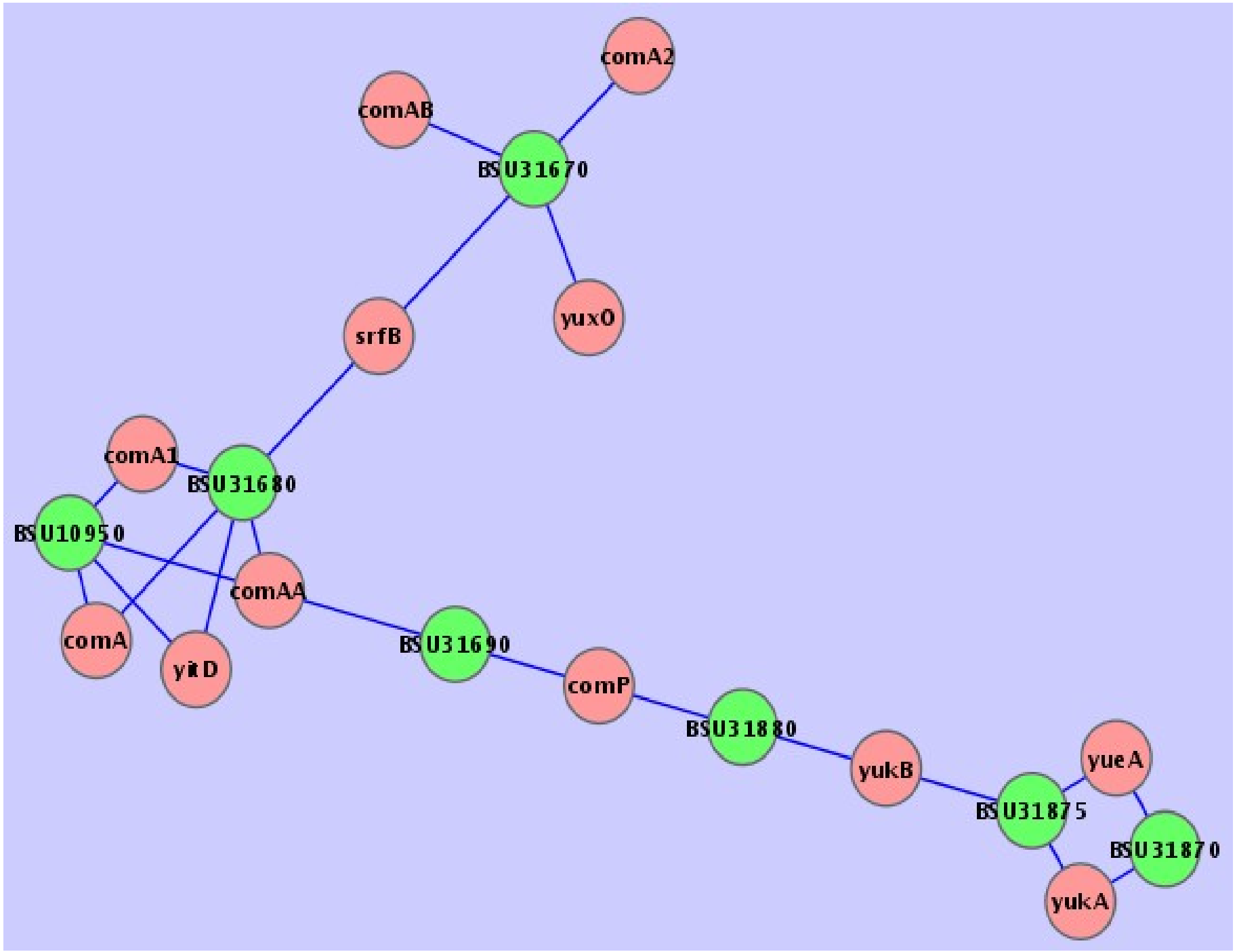
yvfB
BSU34260
BSU34265
yvfA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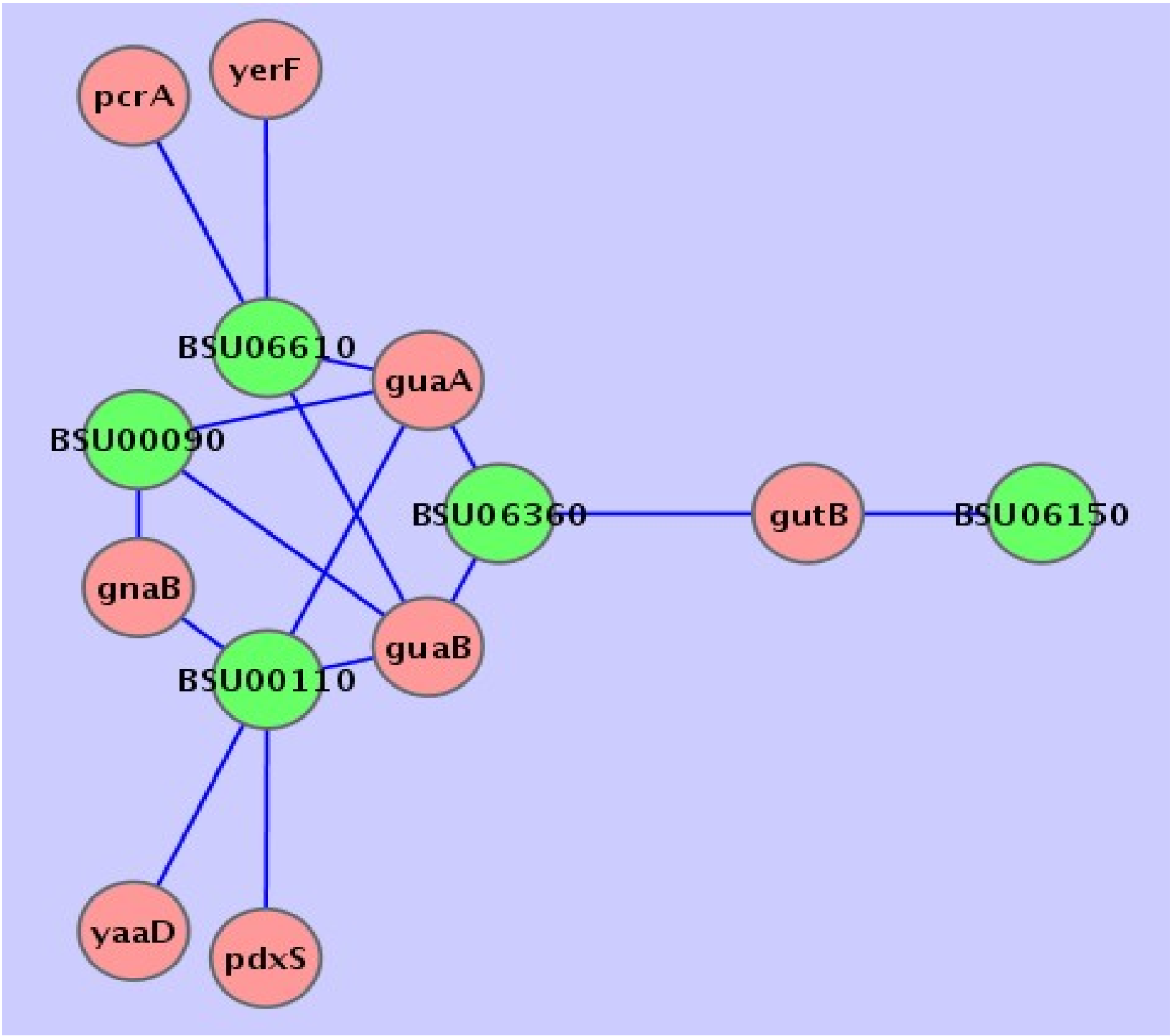
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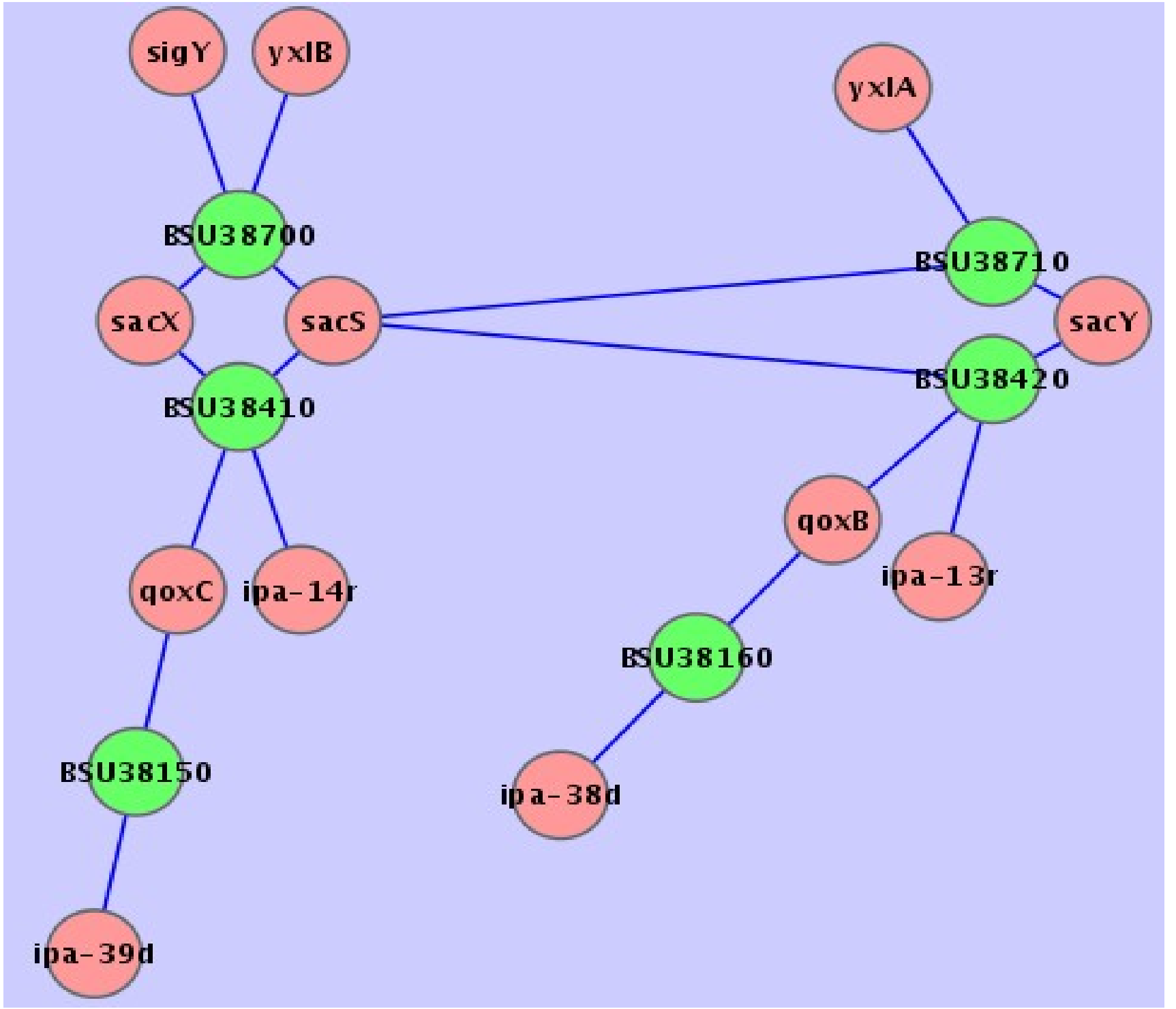
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BSU38710
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sacS
sacY
BSU38420
BSU38410
qoxB
qoxC
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ipa-13r
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BSU38150
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ipa-39d