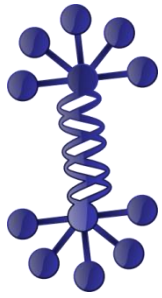


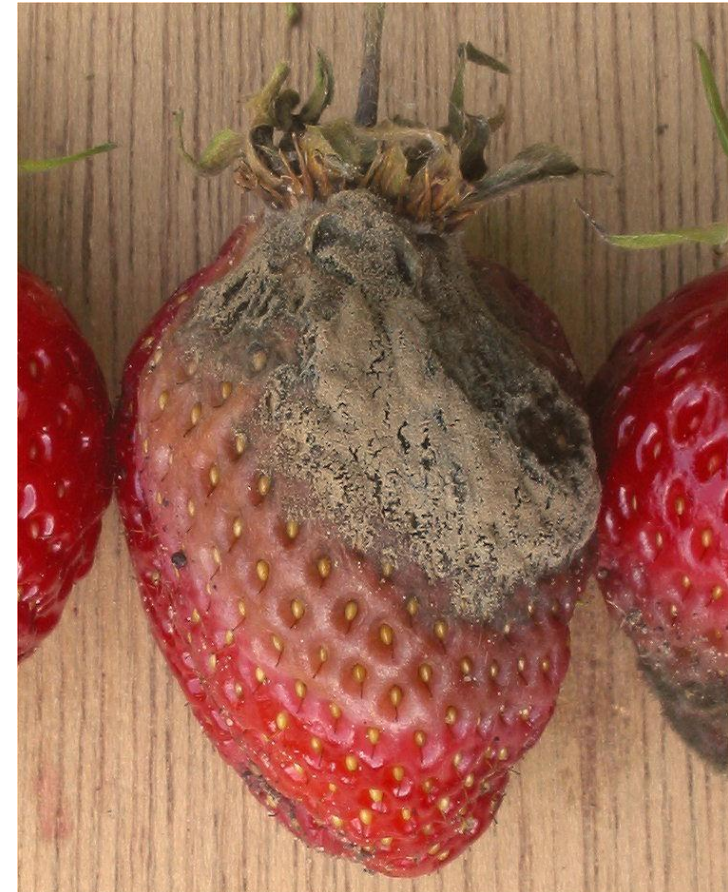
Practical data integration for systems biology using the Oindex system

The Oindex project

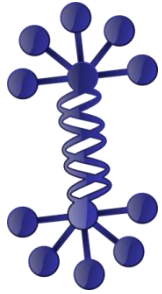
contact@oindex.org



Botrytis cinerea

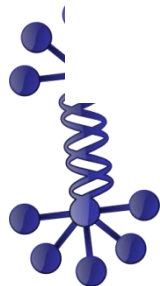


- Genomic data available
- BUT no phenotypic data



PHI-base

- Reference database of virulence and patho-genicity genes validated by gene disruption experiments
 - Literature mining
 - Manual curation
 - <http://www.phi-base.org/>



<http://www.phi-base.org/>

PHI-
base
Pathogen
Host
Interactions

This database contains expertly curated molecular and biological information on genes proven to affect the outcome of pathogen-host interactions. Information is also given on the target sites of some anti-infective chemistries.

Search

About

Release notes

Download

Disclaimer

Errors & contributions

Help

Consortium

Quick Search

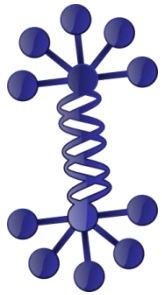
Search for order by

e.g. 'ACE*', 'Candida a*' or 'PHI:441'

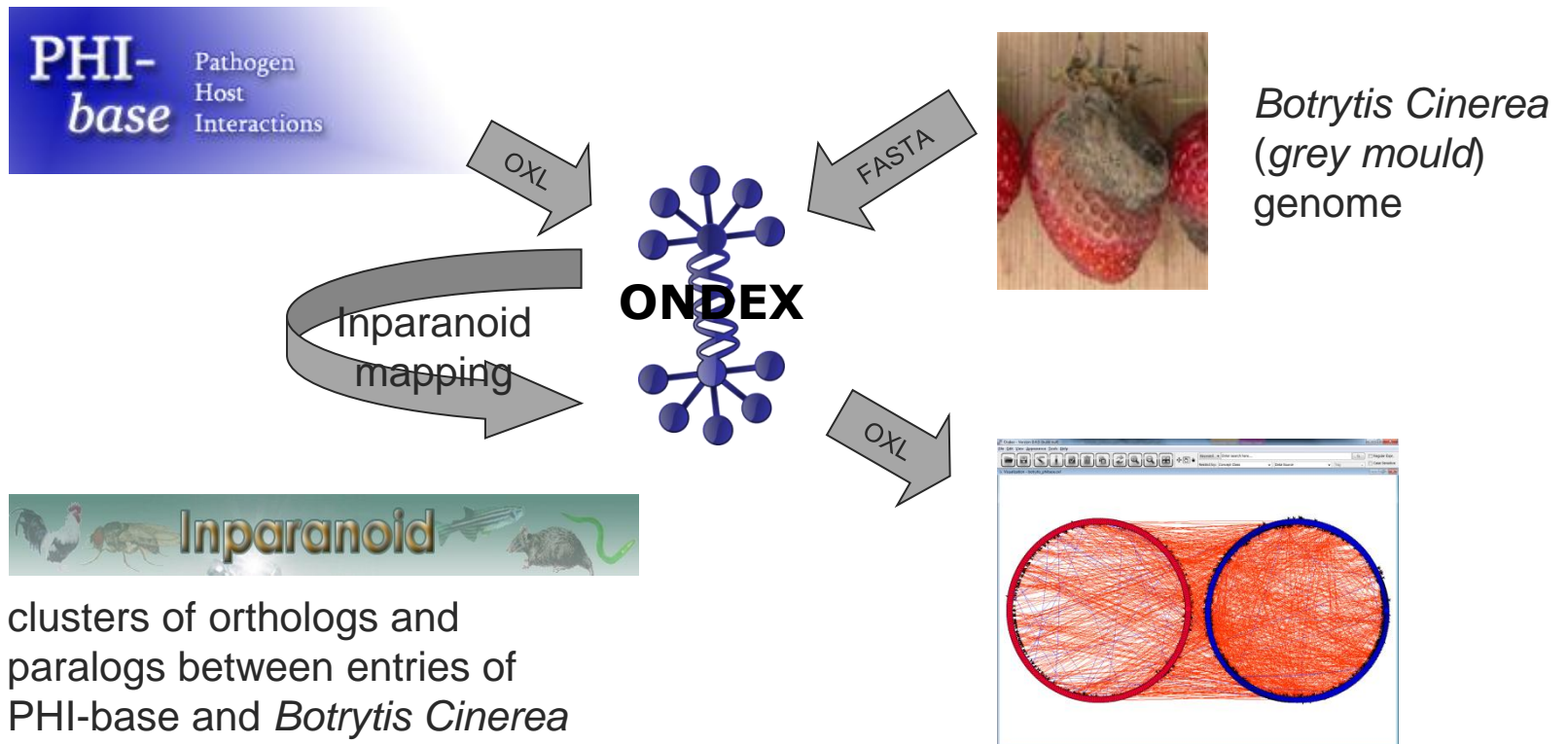
Advanced Search

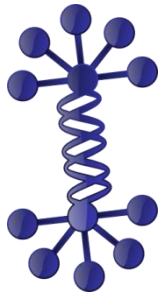
Search	Gene	for	<input type="text" value="all"/>	<input type="button" value="Go"/> <input type="button" value="Clear"/>
<input checked="" type="radio"/> and <input type="radio"/> or	Disease	for	<input type="text" value="all"/>	
<input checked="" type="radio"/> and <input type="radio"/> or	Host	for	<input type="text" value="all"/>	
<input checked="" type="radio"/> and <input type="radio"/> or	Pathogen	for	<input type="text" value="all"/>	
<input checked="" type="radio"/> and <input type="radio"/> or	Anti-Infective	for	<input checked="" type="radio"/> all <input type="radio"/> <div>Allylamines Benzimidazoles Carboxylic acids</div>	
<input checked="" type="radio"/> and <input type="radio"/> or	Phenotype	for	<input checked="" type="radio"/> all <input type="radio"/> <div>Loss of pathogenicity Reduced virulence Unaffected pathogenicity</div>	
<input checked="" type="radio"/> and <input type="radio"/> or	Experimental evidence	for	<input checked="" type="radio"/> all <input type="radio"/> <div>gene disruption + gene mutation + gene mutation: characterised</div>	

- List of “hot” target genes curated from literature
 - Loss of pathogenicity
 - Reduced virulence
- Only genes validated by gene disruption experiments

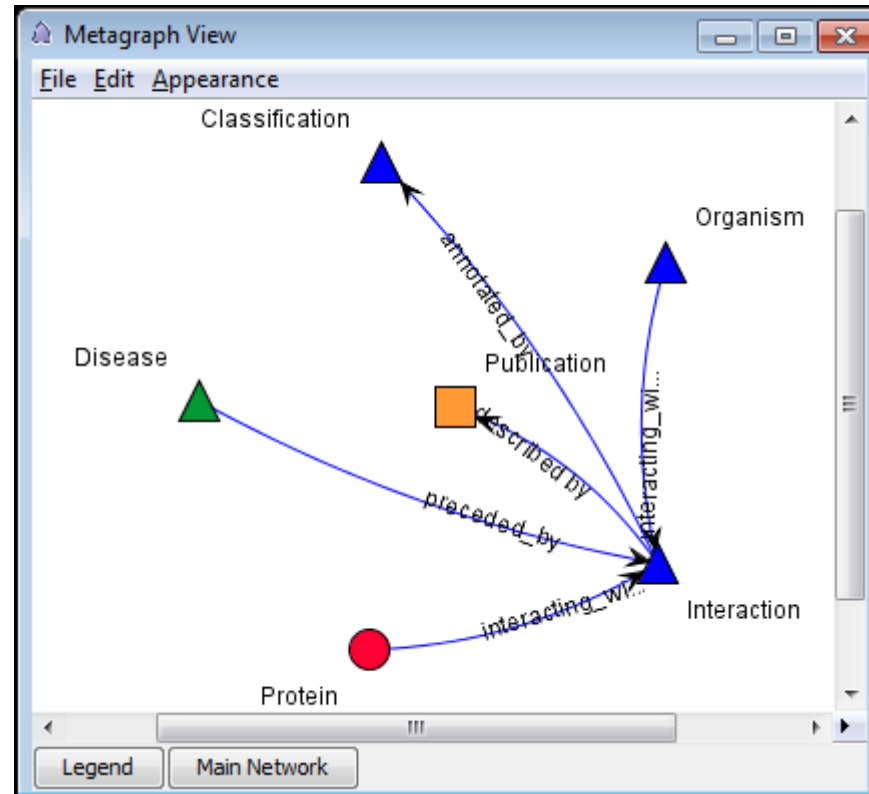


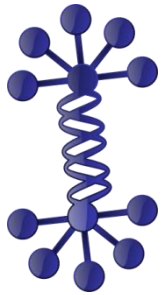
PHI-base & Botrytis integration



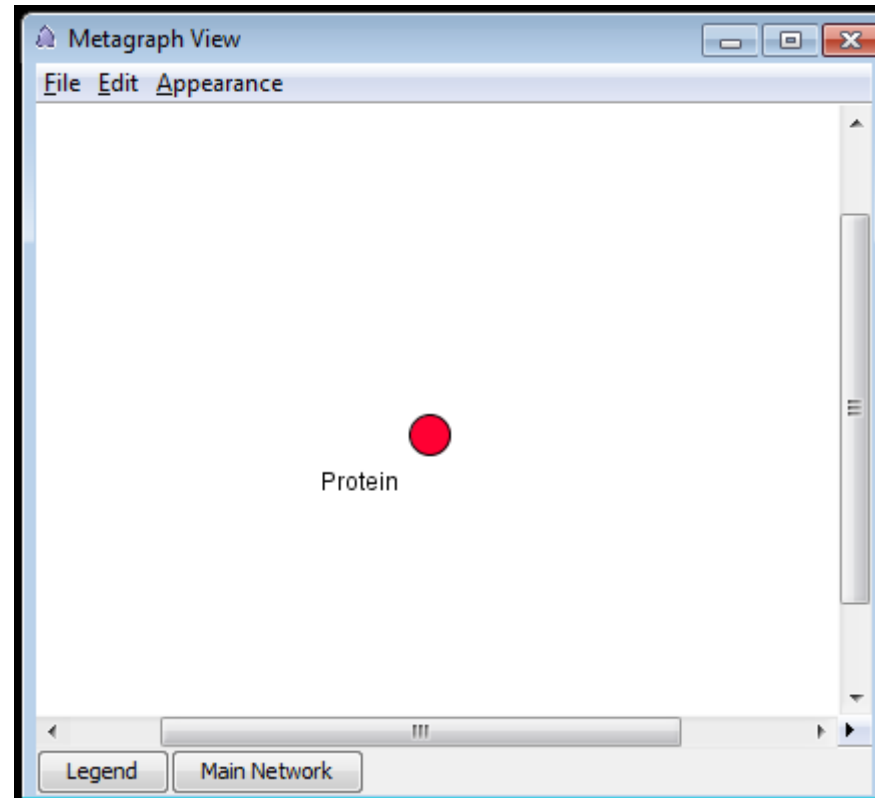


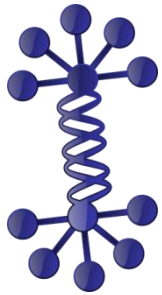
PHI-base in Oindex



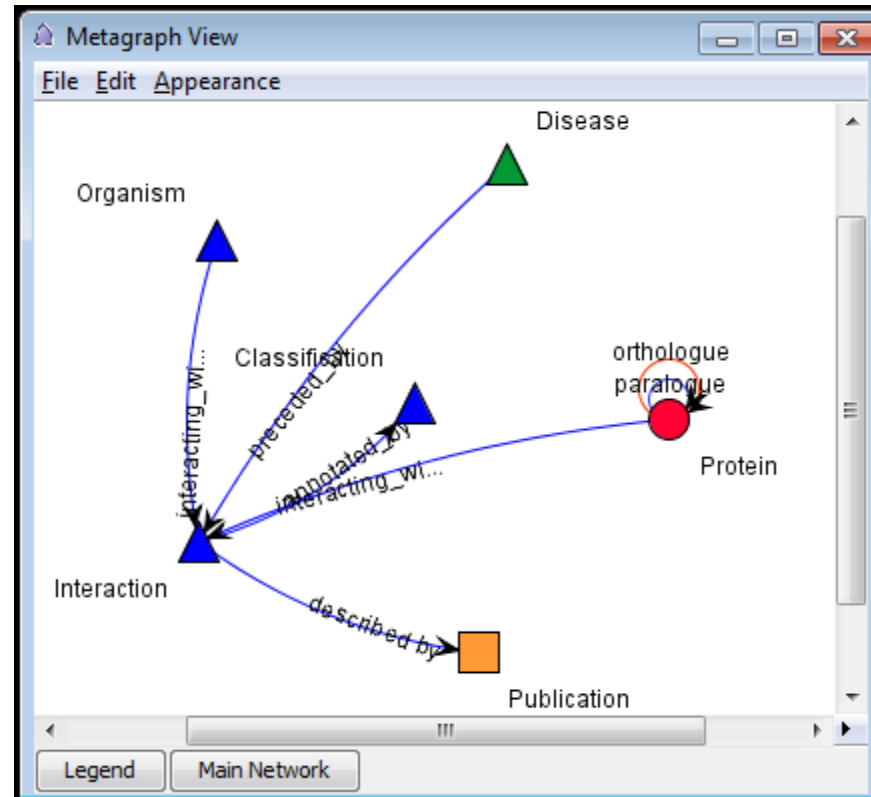


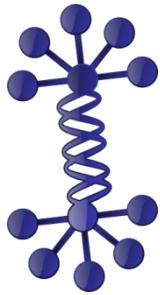
Botrytis genome in Ondex



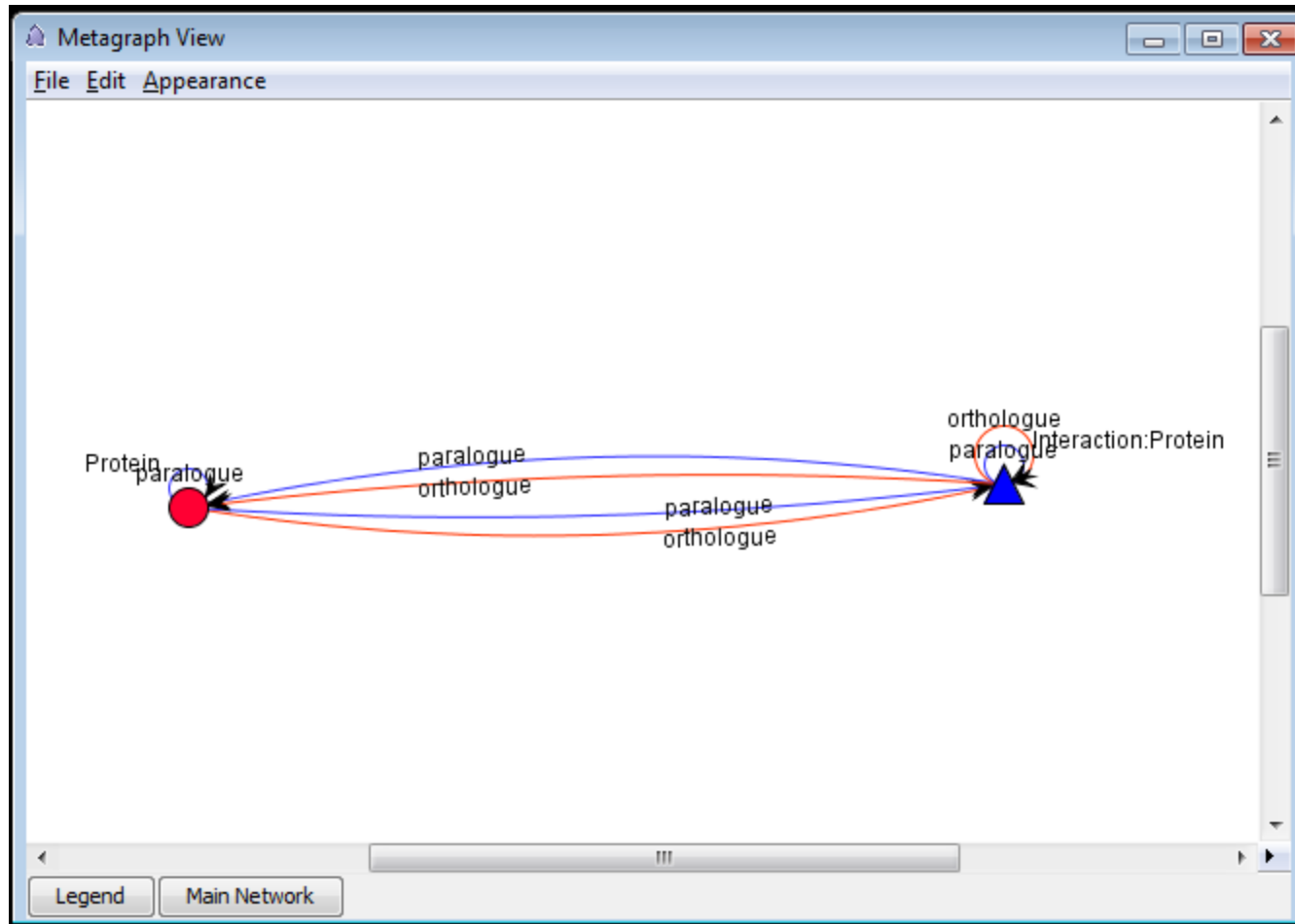


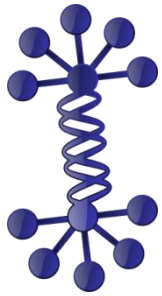
Results of Inparanoid Mapping



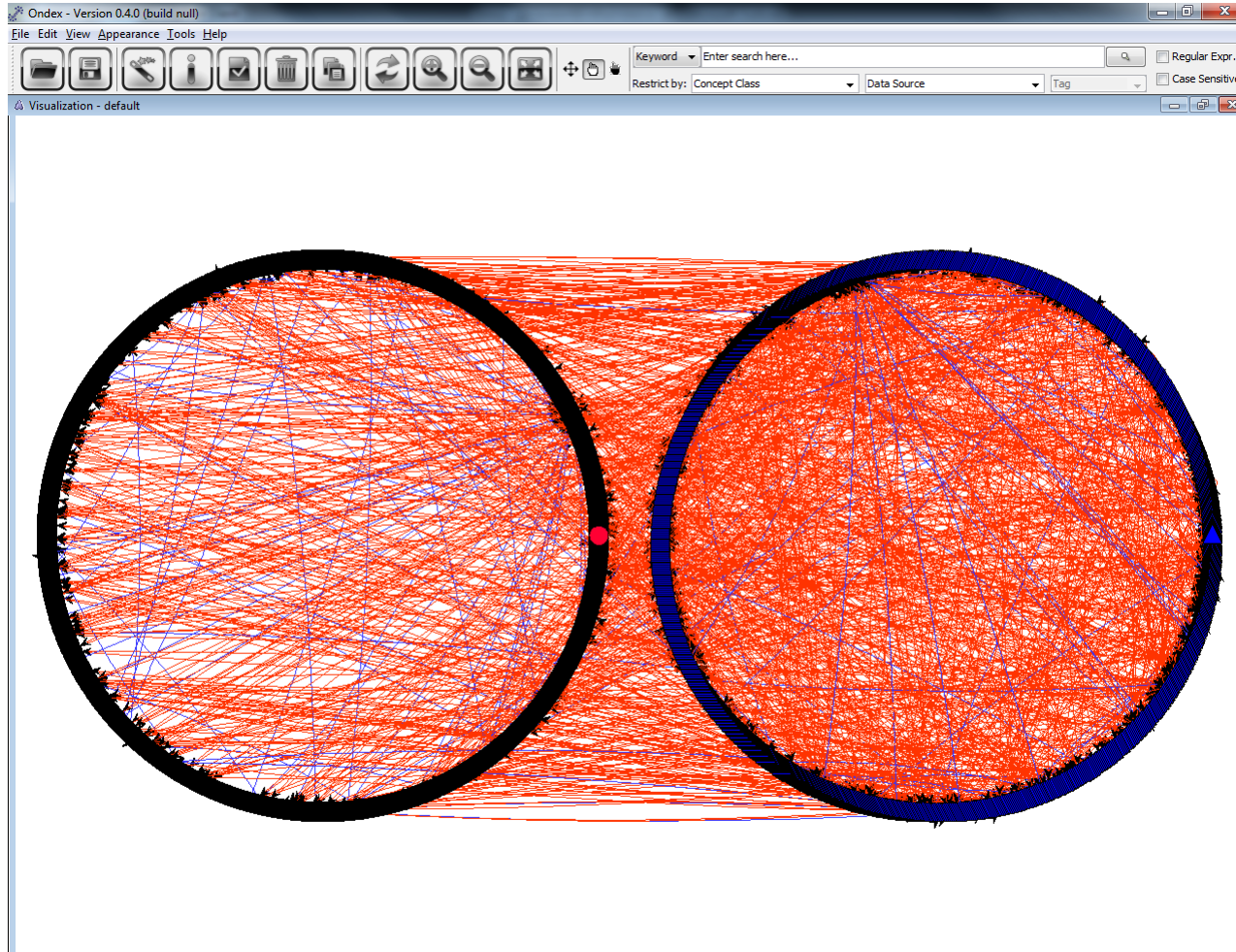


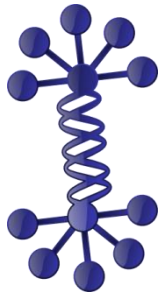
Intermediate results



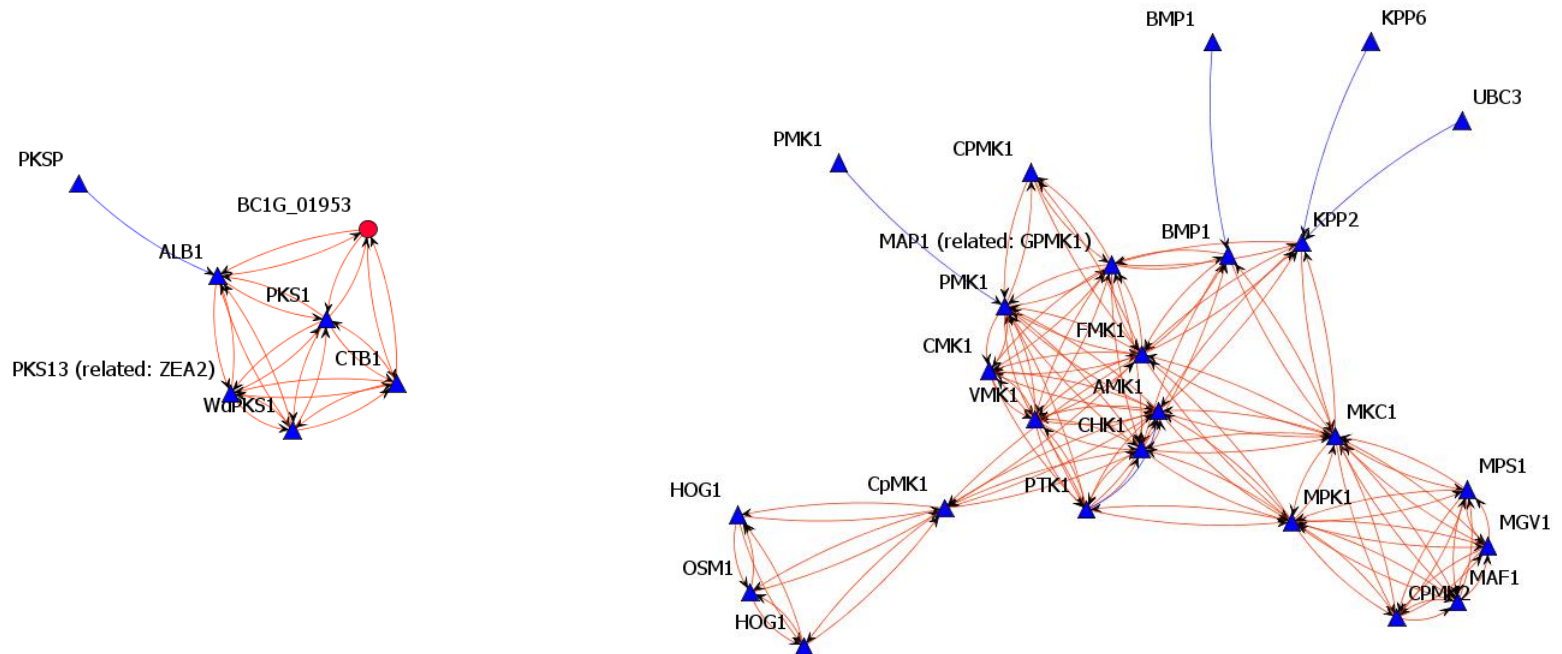


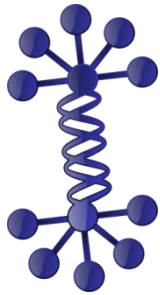
Need to filter out unconnected proteins in the network





Need to keep clusters including botrytis proteins only





Acknowledgements

Rothamsted members:

- Catherine Canevet
- Keywan Hassani-Pak
- Stephen Hanley
- Matthew Hindle
- Angela Karp
- Shao Chih Kuo
- Artem Lysenko
- Chris Rawlings
- Mansoor Saqi
- Andrea Splendiani
- Jan Taubert

Former members:

- Jacob Köhler
- Rainer Winnenbergh

Manchester members:

- Sophia Ananiadou
- Paul Dobson
- Paul Fisher
- Carole Goble
- Gina Levow
- Pedro Mendes
- Raheel Nawaz
- Georgina Moulton
- Robert Stevens
- David Withers
- Katy Wolstencroft

Edinburgh members:

- Igor Goryanin
- Andrew Millar
- Luna De Ferrari

Newcastle members:

- Simon Cockell
- James Dewar
- Eva Holstein
- Katherine James
- Philip Lord
- David Lydall
- Matthew Pocock
- Jochen Weile
- Darren Wilkinson
- Anil Wipat

Biological collaborators:

- Kim Hammond-Kosack
- Martin Urban
- Dimah Habash
- David Wild
- Katherine Denby
- Roxane Legaie