MetaCore™ Quick Reference

User Data

Networks

- Up-regulated (+) — Object has user data with positive value
- Down-regulated (-) — Object has user data with negative value
- Mixed-signal (+/-) — Object has user data with both positive and negative values

Maps

Network Objects

Enzymes

- Generic enzyme

KINASE
- Generic kinase
- Protein kinase
- Lipid kinase

PHOSPHATASE
- Generic phosphatase
- Protein phosphatase
- Lipid phosphatase

PHOSPHOLIPASE
- Generic phospholipase

PROTEASE
- Generic protease
- Metalloprotease

GTPase
- G-alpha
- RAS - superfamily

Generic Classes

- Receptor ligand
- Transcription factor
- Protein
- Compound
- Predicted metabolite or user's structure
- Inorganic ion
- Reaction
- DNA
- RNA
- Generic binding protein

Channels/Transporters

- Generic channel
- Ligand-gated ion channel
- Voltage-gated ion channel
- Transporter

Receptors

- Generic
- GPCR
- Receptors with kinase activity

G protein Adaptor/Regulators

- G beta/gamma
- Regulators (GDI, GAP, GEF, etc.)

Groups of Objects

- A complex or a group — Proteins physically connected into a complex or related as a family
- Logical association — Proteins linked by logical relations or physical interactions
- Custom association — Group of collapsed objects chosen by user

Other Marks

- Red circle — The links terminated due to a restriction of the number of steps in network expansion.
- Blue circle — The links terminated due to network truncation.

Interactions Between Objects

Effects

- Positive / activatiion
- Negative / inhibition
- Unspecified

Mechanisms

PHYSICAL INTERACTIONS

- B — Binding: Compound binds the enzyme or receptor
- C — Cleavage: Cleavage of a protein at a specific site yielding distinctive peptide fragments. Proteolytic cleavage can be carried out by both enzymes and compounds
- CM — Covalent modifications: Protein activity regulation by covalent binding of a small chemical group to the aminoacids of an active site.
- +P — Phosphorylation: Protein activity is altered via addition of a phosphate group
- - P — Dephosphorylation: Protein activity is altered via removal of a phosphate group
- T — Transformation: Protein activity regulation by binding & hydrolysis of GTP
- Tn — Transport: Transport of a protein or a compound between organelles
- Z — Catalysis: Catalysis of an enzymatic reaction
- Tr — Transcription regulation: Physical binding of a transcription factor to target gene's promoter
- M — MicroRNA binding: Regulation of gene expression by binding of microRNA to target mRNA

FUNCTIONAL INTERACTIONS

- IE — Influence on expression: Compounds change the expression level of target genes indirectly, for instance by binding to upstream receptors
- Cn — Competition: Protein activity regulation by competition at the substrate binding site
- ? — Unspecified interactions: Mechanism is unknown or/and effect is indirect
- PE — Drug-Drug interactions. Pharmacological effect: Drugs change pharmacological effects of other drugs, for instance by competing for drug metabolism enzymes or organic transporters
- TE — Drug-Drug interactions. Toxic effect: Drugs change toxic effects of other drugs, for instance by competing for drug metabolism enzymes or organic transporters

LOGICAL RELATIONS

- GR — Group relation: Object belongs to a generic group of related objects
- CS — Complex subunit: Protein is a subunit of a protein complex
- SR — Similarity relation: Chemically similar compounds with chosen Tanimoto similarity score

Links on Networks

- Incoming interaction — When the mouse is over object, yellow link indicates direction to object
- Outgoing interaction — Cyan link indicates direction **FROM** the object

Interactions from custom list (MetaLink™)

- Interaction is in the network — Interaction is represented by a thin solid line and is highlighted in blue
- Interaction is in the base, but not in network — Interaction is highlighted in yellow
- Interaction is in the network — Interaction is highlighted in magenta

Canonical pathways

- Canonical pathway — The link is highlighted in a thick cyan or magenta line

Links on Maps

- Disrupts in disease
- Weakens in disease
- Emerges in disease
- Enhances in disease
- Species specific interactions

Objects on Maps

Localization

- Mitochondria
- EPR
- Golgi
- Nucleus
- Lysosome
- Peroxisome
- Cytoplasm
- Extracellular

Other Map Objects

- Note
- Normal process
- Pathological process
- Normal map
- Disease map
- Species specific object
- Path start

GeneGo
(888) 592-3124
(858) 756-7996
www.genego.com
sales@genego.com