

Guide to IMMUNOPHARMACOLOGY

Database & Web-Portal Release Notes

Version: beta 3.0

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Overview

The Guide to PHARMACOLOGY (GtoImmuPdb) is an extension to the Guide to PHARMACOLOGY (GtoPdb). These are release notes for the third public beta-release.

These release notes note changes from the beta v2.0 release. Please refer back to previous notes for full details. There is also a developer notes section detailing code notes and documentation

DEVELOPER NOTES

Included in this release

1. Navigation

i. Menu Bars

- New menu item for **Diseases**
- Links to new **Disease List** page, focussed on disease of immunological relevance via the Immuno Diseases tab

2. Portal

i. Disease panel

- The diseases panel has a link to the new **Disease List** pages (<http://www.guidetoimmunopharmacology.org/GRAC/DiseaseListForward?type=Immuno>)

ii. Side bar

- The Twitter panel has been moved to the right-hand side bar (and the Facebook panel removed altogether).

3. Ligand Summary Pages

i. Immunopharmacology tab

- Some ligands are tagged in GtoImmuPdb but have no comments or data. In these instances a holding message is displayed indicating that the ligand is awaiting more detailed curation.

4. Process Association to Targets Page (prev. Immuno Process Association List Page)

i. Home page for Immuno Processes

- URL: www.guidetoimmunopharmacology.org/GRAC/ProcessesForward
- Gives a description of each category
- Lists mapped GO parents terms used to help define and annotated targets to each category

ii. GO associations

- All associations with the IEA evidence code are displayed in italics. This is to help distinguish them from other evidence codes. They are also lists after GO associations with other codes.

5. Cell Type Association to Targets Page (prev. Immuno Cell Type Association List Page)

i. Home page for Immuno Cell Types

- URL: www.guidetoimmunopharmacology.org/GRAC/CelltypesForward
- **NEW** interactive immuno cell types graphical tree
 - Users can click on cell types to link to its associations page
- Descriptions of all categories are lists under the cell types graphic
- Include mapped Cell Ontology terms that help define and annotated each category

6. Advanced Search

- Added advanced search on targets for immuno processes and celltype.
- Provided a limit to just immuno targets (or families with immuno targets).
- Incorporated inferred searching on GO and CO ontology terms. Search on 'cytokine' will match an GO parent term that contains the word 'cytokine' and bring back targets annotated to that term, or any of it's children.
- Immunopharmacology comments, processes categories and comment, GO terms, Cell Types categories and comments, Cell Ontology terms, Disease terms and comments - all fields added to the target advanced search
- Immunopharmacology comments, associated diseases and disease comment fields added to the ligand advanced search

7. Target GtoImmuPdb Display

Adjusted display of all categories to keep empty data field hidden

Changed immuno processes so IEA evidence are hidden - but expandable view

8. Disease List Pages

New pages developed to list all diseases with curated content. This development is shared with the main GtoPdb.

i. URL

- <http://www.guidetoimmunopharmacology.org/GRAC/DiseaseListForward?type=Immuno>

ii. Content

- Tabs allow switch between 'All Diseases' and 'Immuno Disease'. Facility in place to extend categories.
- Diseases lists alphabetically, with quick links at top to each section
- Table displays disease name, ID and synonyms (disease table)
- Two column show total count of targets and ligand associated to the disease. Targets is the count of distinct objects in pathophysiology and immuno_disease2object tables.

iii. Code

- DiseaseListForward.java and diseaseList.jsp

9. Disease Summary Pages

New pages developed to display details of curated content relevant to a disease in GtoPdb/GtoImmuPdb.

Extended the Pathophysiology.java object to include data from immuno_disease2object, and immuno_disease2ligand so all pathophysiology, mutation and immuno data is consolidated for each target associated to disease.

i. URL

- <http://www.guidetoimmunopharmacology.org/GRAC/DiseaseDisplayForward?diseaseId=801> (Psoriasis)

ii. Code

- DiseaseDisplayForward.java and diseaseSummaryDisplay.jsp
- DAL: getPathophysiologyForDisease (union of objects in pathophysiology and immuno_disease2object) and getDiseasePathophysiology (joins info on targets from the tables).
- getDiseaseReferencesForDisease (get references for the disease)
- getImmDiseaseLigand (code to get data from immuno_disease2ligand for the disease)

iii. Content (Top-section)

- Name, Synonyms, Description, Links and ID from disease table
- Counts of pathophysiology objects (total targets)
- Count length of disease immDiseaseObject and immDiseaseLigands arrays - give distinct immuno counts.

iv. Content (Targets)

- Target name links to detailed view page
- Info from pathophysiology (role, drugs, side-effects, therapeutic use)
- Comments are combinations of pathophysiology.comments and immuno_disease2object.comments
- Mutations is count of mutations array - links to detailed view page for more info
- Immuno ligand interactions is immDiseaseLigand array from pathophysiology object

- All ligand that interact with target AND are associated to the disease
- Data from `immuno_disease2ligand` and `ligand` tables

v. Content (Ligands)

- Data from `immuno_disease2ligand` table
- All ligands associated to disease. Currently only curated for GtoImmuPdb.
- Expandable clinical comments
 - Clinical Use: from `ligand.clinical_use` table
 - Immuno Disease Comment: from `immuno_disease2ligand.comment`

User guide

Portal

The main portal URL is (www.guidetoimmunopharmacology.org).