GSRS Development Update

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NCATS

GSRS Status

High level GSRS Core status

- GSRS 2.1 development
    - Porting certain FDA-enhancements to core code
    - GSRS 2.1 in pre-production at FDA
    - Public release of 2.1, with updated data expected by end of February

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
GSRS Status

High level GSRS Core status

- GSRS 2.1 developments
  - Bug fixes
  - SDF data import
  - Support for large Nucleic Acids
  - UI simplification
  - Complex facet and filter searches
  - Enhanced ad-hoc reports
  - Enhanced data-pipelines and data triggers

GSRS Status

High level GSRS Core status

- GSRS 2.1 development (continued)
  - Improved Developer Documentation
    - Much simpler to add customized searches, triggers, and scheduled tasks

📝 How To Write a Scheduled Task.docx	Refactored scheduled tasks to use simpler in
📝 How To Write an Entity Processor.docx	Added some more docs
📝 How To Write an Index Value Maker.docx	Added some more docs
📄 SubstanceExporterHowTo.md	starting docs folder

GSRS Status

High level GSRS Core status

- GSRS 2.1 development (continued)
  - Complex and boolean facets now supported

GSRS Status

Triggers

- GSRS 2.1 development (continued)
  - New Processor that can be used to get notified when substances get added or changed

```
public abstract class PersistedSubstanceProcessor {

    protected abstract void handleNewSubstance(Substance substance);

    protected abstract void handleUpdatedSubstance(
                    Substance oldSubstance, Substance newSubstance);
```

  - Used by FDA to replace fragile database triggers to update other internal FDA systems.
  - **Used in Future for inter-G-SRS communication**

GSRS Status

REST API Usage

Swagger: https://tripod.nih.gov/ginas/#/gsrs/api

- The REST API can:
  - Search
  - Update
  - Register
  - Browse

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GSRS Status

REST API Usage

JsFiddle Example: http://jsfiddle.net/Ld79Lx49/

- The REST API can:
  - Search
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GSRS API Demo

Enter substance names or codes to resolve on the left, select what you'd like to map to below, and click "Map" to resolve the output using GSRS. Results are tab-delimited.

Input

```
SUBOXONE
NATURETIN
CELESTONE
203120-17-6
20305-51-5
NPL-2009
DD-3480
SM-1213
```

Map ->
(Sort)

Output

Substance

☑ Active Moiety PT	☑ Active Moiety ID	☐ Substance Class
☐ All Names	☐ ATC Code	☐ Preferred Term
☐ Bracket Terms		

Chemical

☐ Smiles	☑ InChIKey	☐ Lychi
☐ Molecular Formula	☑ Molecular Weight	☐ Equivalance Factor
☐ Stereo Type		

Protein

☐ Protein Sequence

Identifiers

| ☐ UUID | ☐ BDNUM[CODE] | ☐ CAS Numbers |
| ☐ EVMPD Code | ☐ Approval ID (UNII) | |

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(Sort)

Output
```
SUBOXONE      BUPRENORPHINE    40D3SCR4GZ      R
NATURETIN     BENDROFLUMETHIAZIDE   5Q52X6ICJ
CELESTONE     BETAMETHASONE    9842X06Q6M      U
203120-17-6   LANINAMIVIR      B408IW3GL5      Q
20305-51-5    HEXESTROL        10BI795R7D      J
NPL-2009      FENOBAM ANHYDROUS        078RCY7I2
DD-3480 TIMIPERONE       626DQ7N19L      YDLQKLWVK
SM-1213 AMIPRILOSE       S0FG5X68QT      YXBQLONCI
```

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GSRS Status

On the horizon

- GSRS 2.1 FDA production roll-out (February 2018)
- GSRS 2.1 Public release and data update (February 2018)

- System-to-system communication pipeline (2018)
- Bug fixes (continual)
- Support for additional substance information (2018)