MetaMap/MTI Web API
MetaMap/MTI Web API

- **MetaMap** identifies biomedical concepts in text

  Cigarette smoking increases the mean platelet volume in elderly patients with risk factors for atherosclerosis.

- **Medical Text Indexer (MTI)** summarizes text using **MetaMap** and the Medical Subject Headings (MeSH) vocabulary

  - Cigarette Smoking
  - Tobacco
  - Blood Platelets
  - Aged
  - Humans
  - Risk Factors
  - Arteriosclerosis
  - Atherosclerosis
Cigarette smoking increases the mean platelet volume in elderly patients with risk factors for atherosclerosis.
MetaMap/MTI Web API

- Easy-to-use Java-based API providing programmatic access to both MetaMap and MTI
MetaMap/MTI Web API

• Simple code insertion

Create MetaMap/MTI Web API Object:

```java
GenericObject myGenericObj = new GenericObject();
```

Set Required Fields:

```java
myGenericObj.setField("Email_Address", "metamap@nlm.nih.gov");
myGenericObj.setField("APIText", "Cigarette smoking increases ...");
myGenericObj.setField("Batch_Command", "metamap -pcI");
```

Submit and Receive Results:

```java
try {
    String results = myGenericObj.handleSubmission();
    System.out.print(results);
} catch (RuntimeException ex) {
} // catch
```
MetaMap/MTI Web API

• Batch Facility (Scheduler)
  – Capacity for large sets of non-Sensitive/non-Personally Identified Information (PII) data
  – Processing spread across large pool of computing resources

myGenericObj.setField("UpLoad_File", ".\sample.txt");
MetaMap/MTI Web API Uses

• **Named Entity Recognition**
  – Identifying drugs or diseases in text

• **Text Indexing**
  – Support NLM Indexing efforts

• **Literature-based discovery**
  – Search for important undiscovered connections

• **2011** 160,000 requests + 12,000 records nightly in-house
Downloadable MetaMap

- What if you do have Sensitive/PII data?
- Download MetaMap and run locally
  - Linux, MacOS X, Windows XP/7
  - Local MetaMap API and UIMA support
MetaMap/MTI Web API


- Contact: [metamap@nlm.nih.gov](mailto:metamap@nlm.nih.gov)