MetaMap/MTI Web API
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- **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

Your Program

non-sensitive text submitted

processed results sent back

MetaMap/MTI Web API
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• 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

```java
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

• Download, Documentation, and Examples: http://skr.nlm.gov/SKR_API

• Contact: metamap@nlm.nih.gov

• Requires Free UMLS Terminology Services (UTS) account: https://uts.nlm.nih.gov