Acetaminophen Metabolism and Hepatotoxicity

Model Book

Julia Klein
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UIC UNIVERSITY OF ILLINOIS
AT CHICAGO

Acetaminophen Metabolism and Hepatotoxicity

Model Notes:

The pill bottle will be modeled with a lathe technique. A label will be applied to the outside of the bottle with UV mapping.

This is a reference image that will be used to create the model. The drawing below is from the storyboard where the model will be used.

APAP Bottle

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Acetaminophen Metabolism and Hepatotoxicity

This is a reference image that will be used to create the model. The drawing below is from the storyboard where the model will be used.
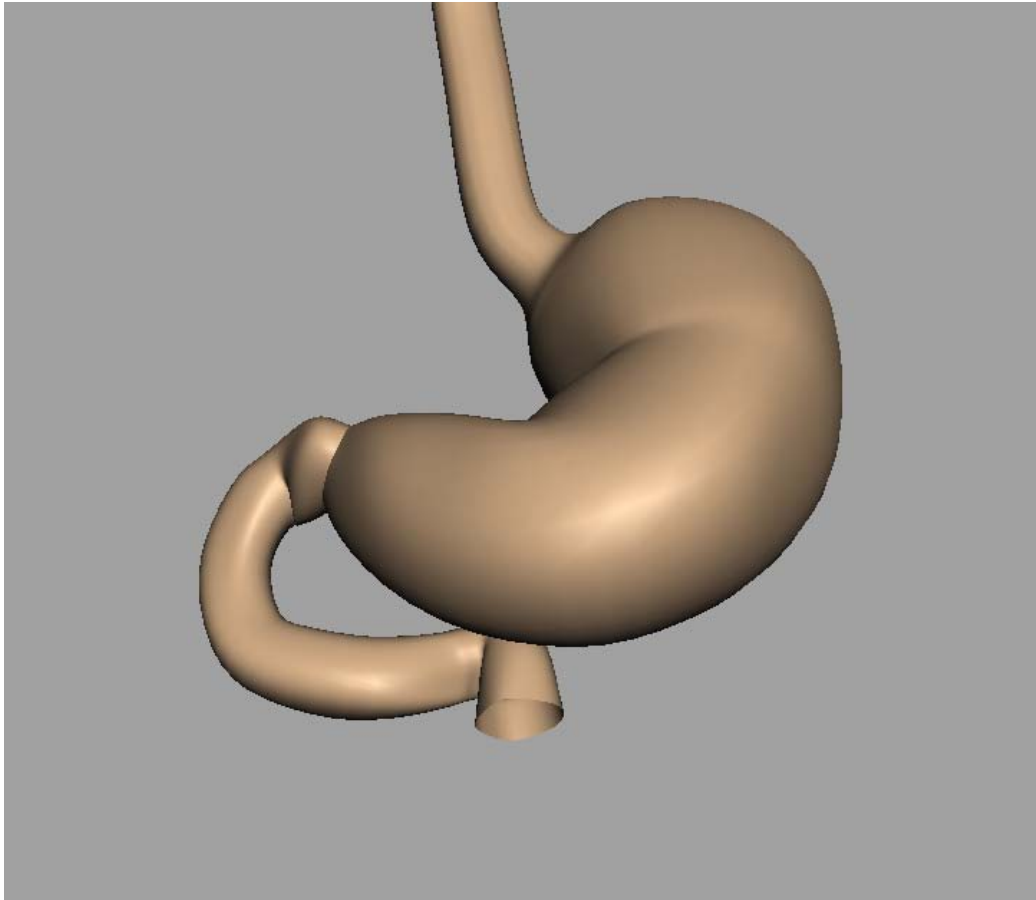
Model Notes:

The model for the APAP tablets will be adapted from a primitive shape in the 3D program.

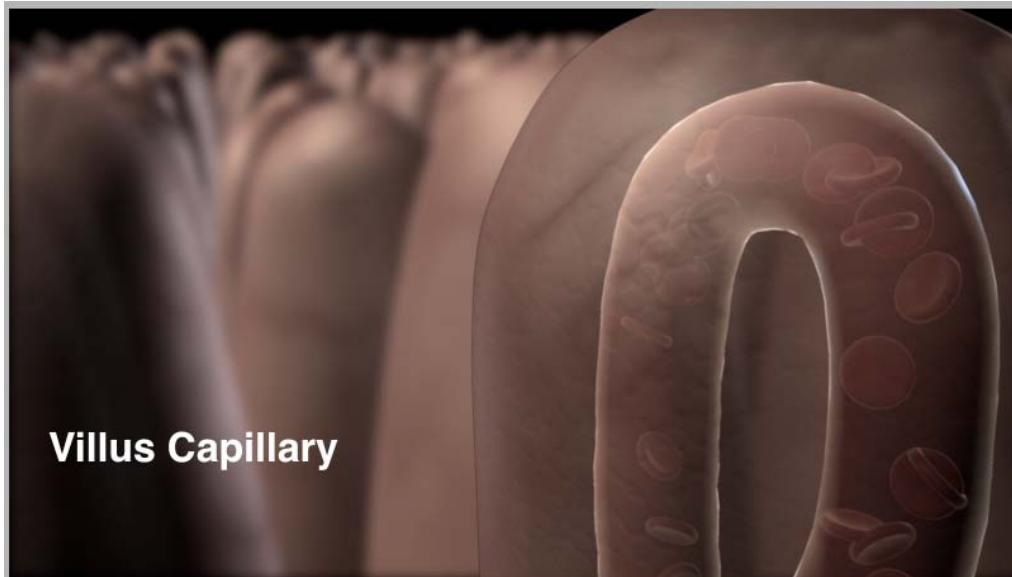

Tablets

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Stomach

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The stomach model will be adapted from a purchased stock 3D model from TurboSquid.

http://www.turbosquid.com/3d-models/anatomy-3d-3ds/432947

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Villus Capillary

GI Tract Villi

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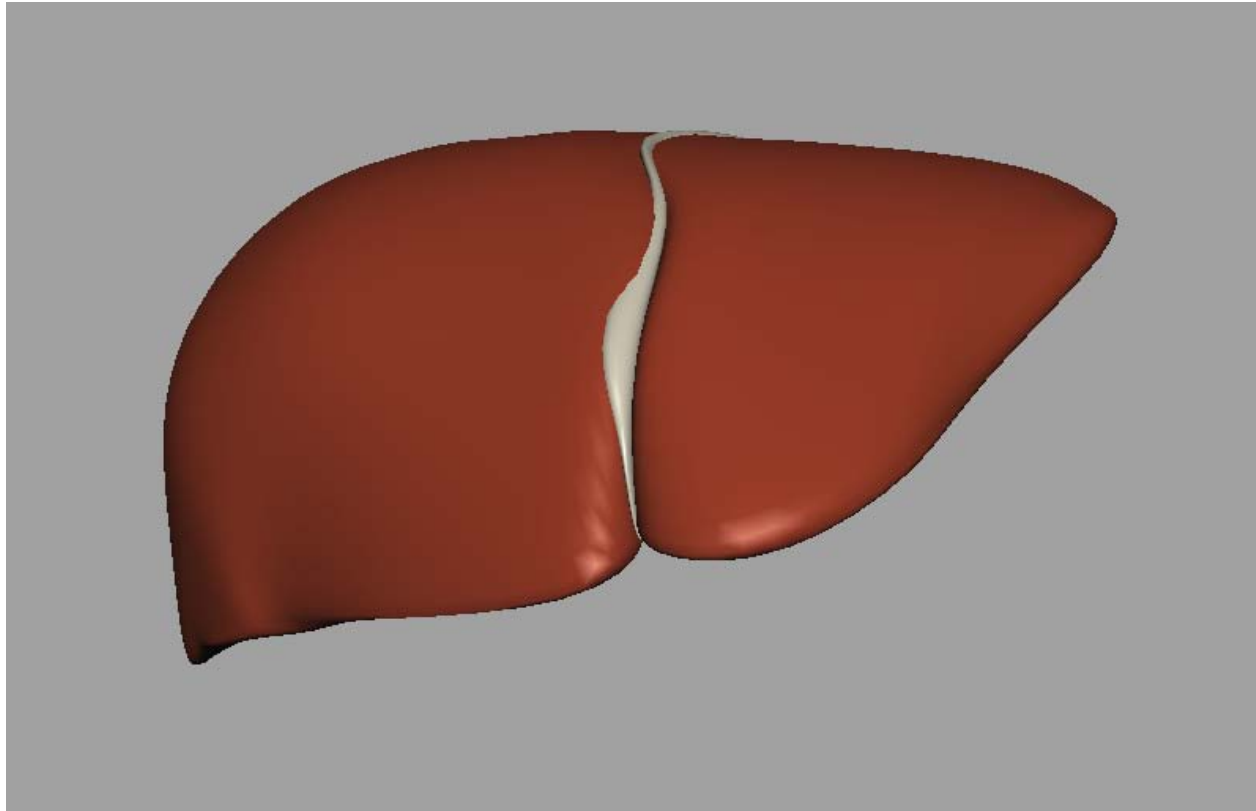
Model Notes:

The liver model will be adapted from a purchased stock 3D model from TurboSquid.

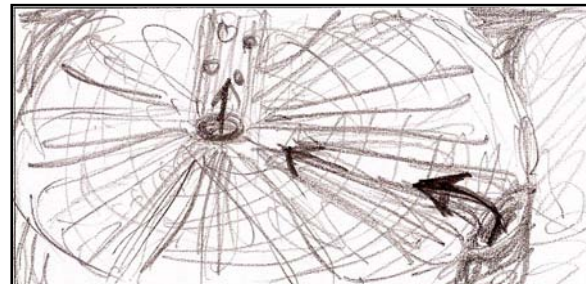http://www.turbosquid.com/3d-models/anatomy-3d-3ds/432947

Liver

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![UIC UNIVERSITY OF ILLINOIS AT CHICAGO]

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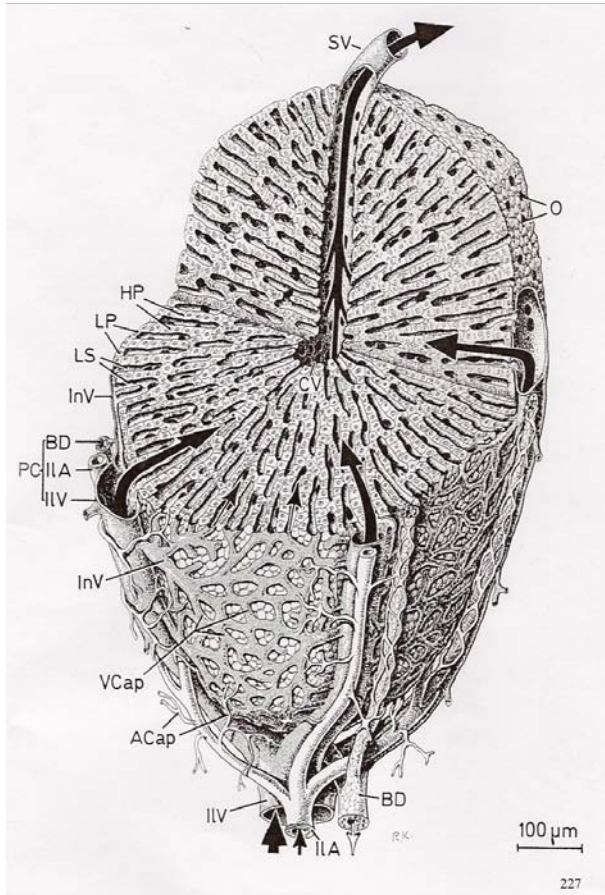
Model Notes:

The liver lobule model will be created as a base shape in Maya and then sculpted in Zbrush or Mudbox.

This is a reference image that will be used to create the model. The drawing below is from the storyboard where the model will be used.

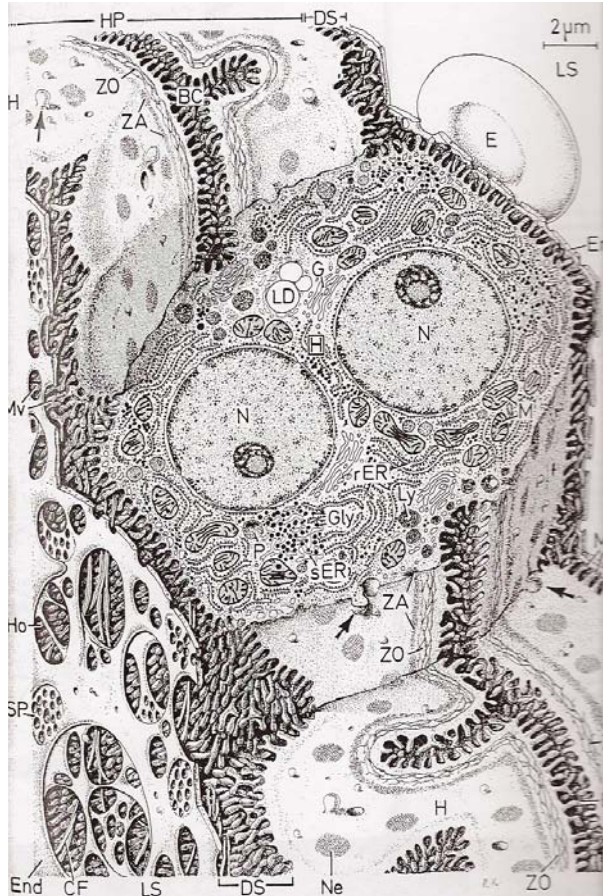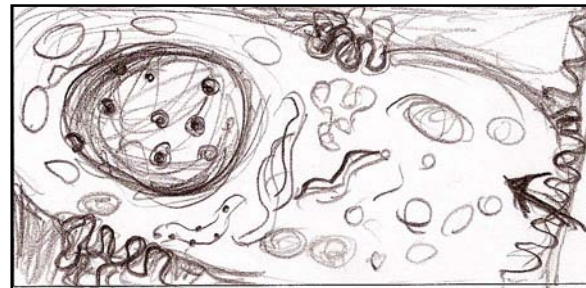# Liver Lobule
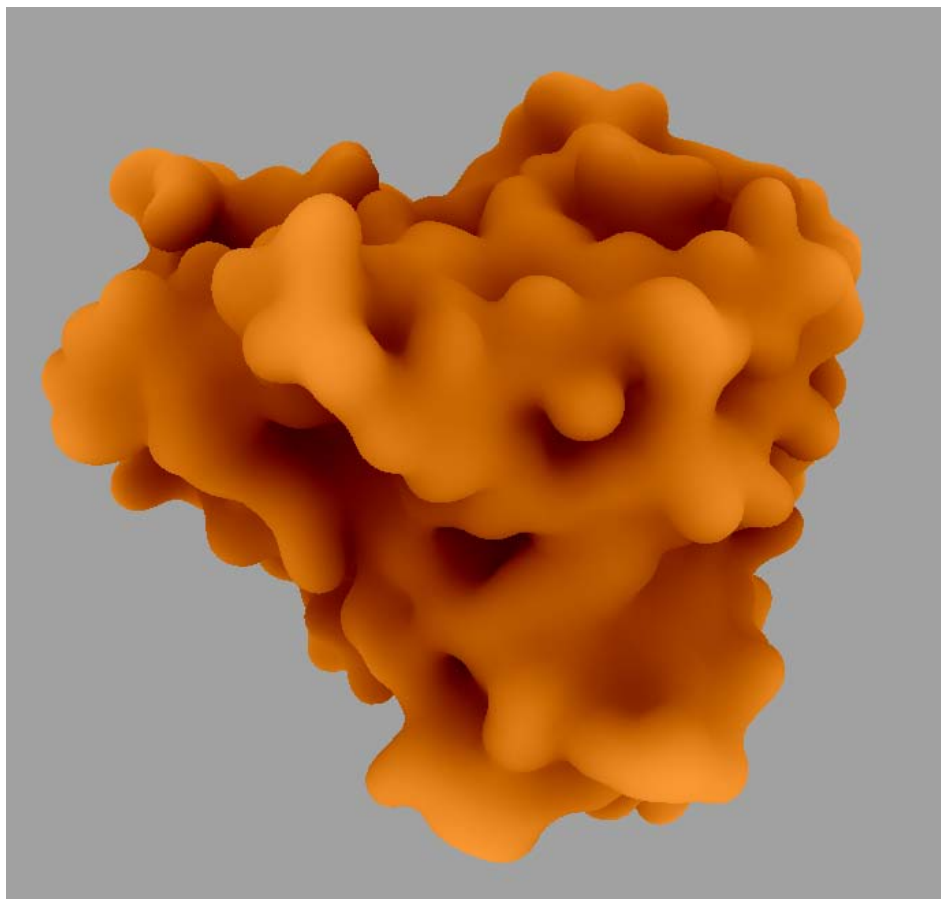
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Model Notes:

The hepatocyte model will be a composite of multiple smaller intracellular shapes. The individual models of those shapes will use simple geometry to represent a stylized interior of a cell.
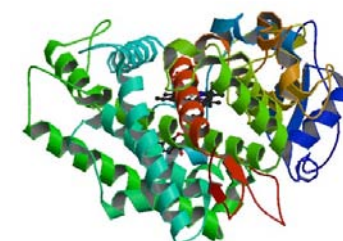
This is a reference image that will be used to create the model. The drawing below is from the storyboard where the model will be used.

Hepatocyte

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Cytochrome P450 (CYP1A2)

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Glutathion Transferase

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Model Notes:

The Molecular Maya plug-in (http://www.molecularmovies.com/toolkit/index.html) will be used to create a molecular surface.

Structure Reference: Protein Data Bank 1EOH
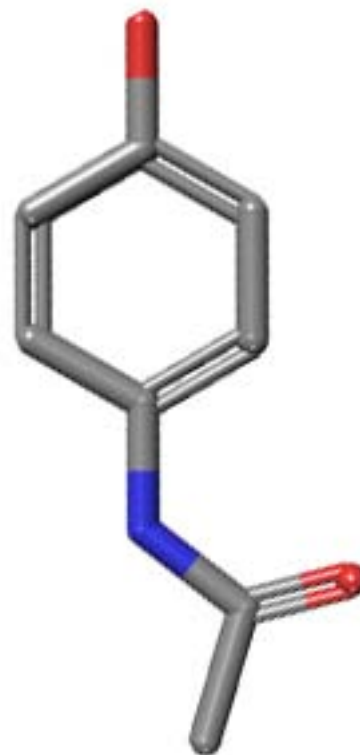
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APAP

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Model Notes:

The Molecular Maya plug-in (http://www.molecularmovies.com/toolkit/index.html) will be used to create a molecular surface.

Structure Reference:
PubChem CID_1983
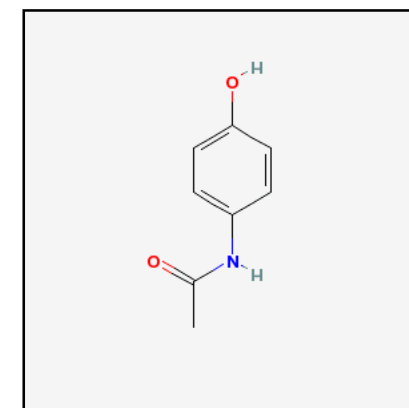
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NAPQI

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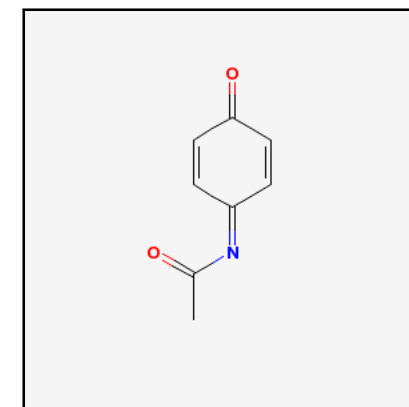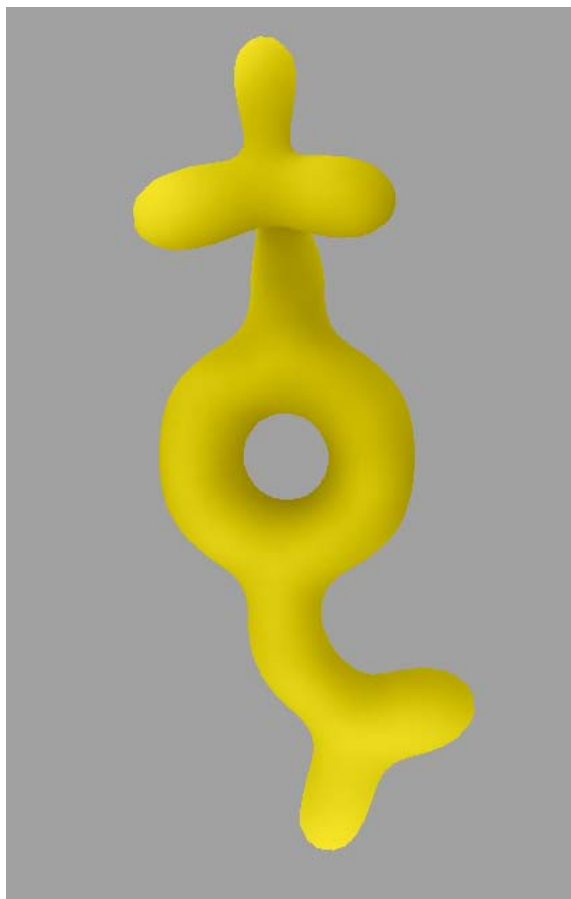
Model Notes:

The Molecular Maya plug-in (http://www.molecularmovies.com/toolkit/index.html) will be used to create a molecular surface.
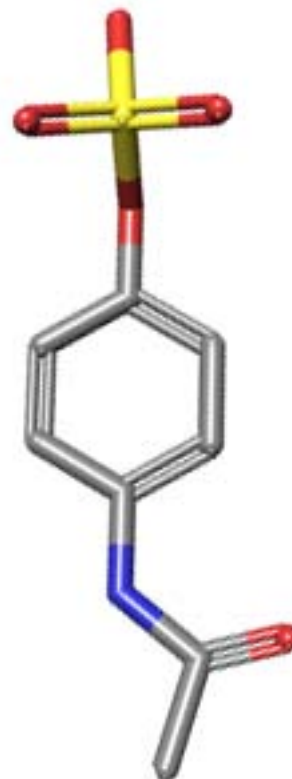
Structure Reference: PubChem CID_39763

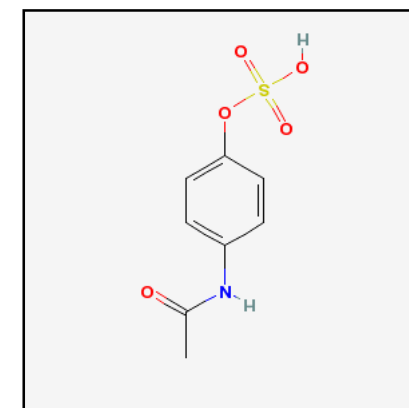# Acetaminophen Metabolism and Hepatotoxicity
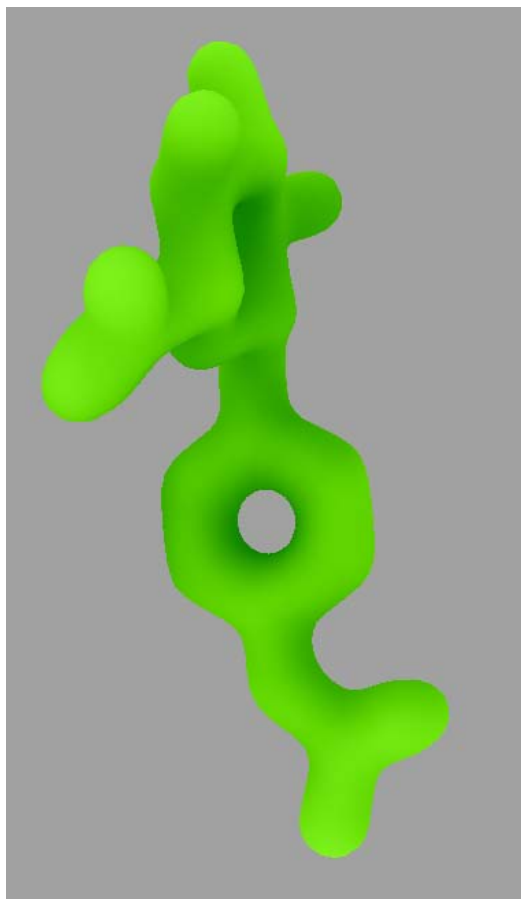

APAP Sulfate

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Model Notes:

The Molecular Maya plug-in (http://www.molecularmovies.com/toolkit/index.html) will be used to create a molecular surface.
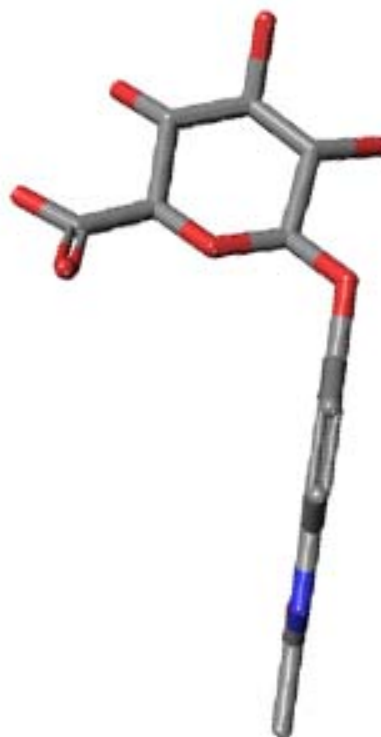
Structure Reference: PubChem CID_83939

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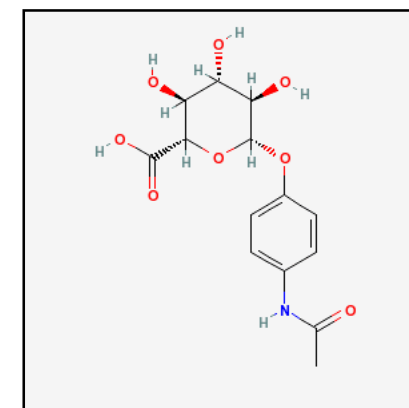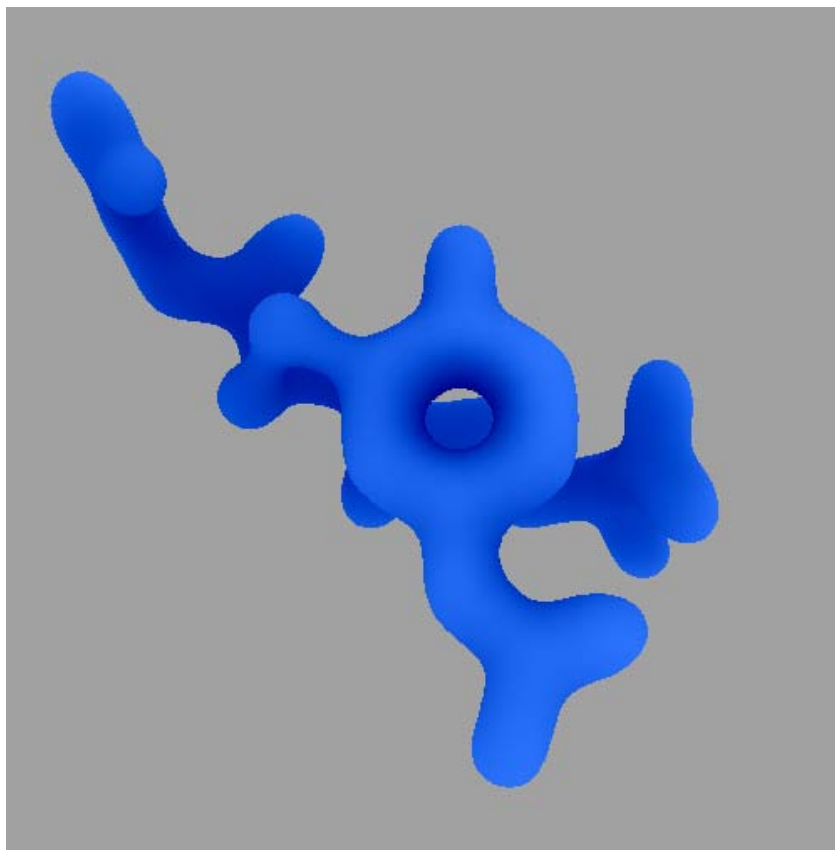

APAP Glucuronide

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Model Notes:

The Molecular Maya plug-in (http://www.molecularmovies.com/toolkit/index.html) will be used to create a molecular surface.

Structure Reference: PubChem CID_83944
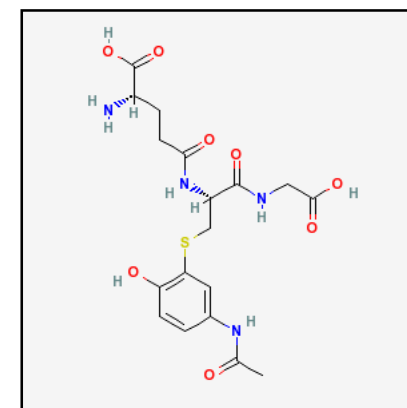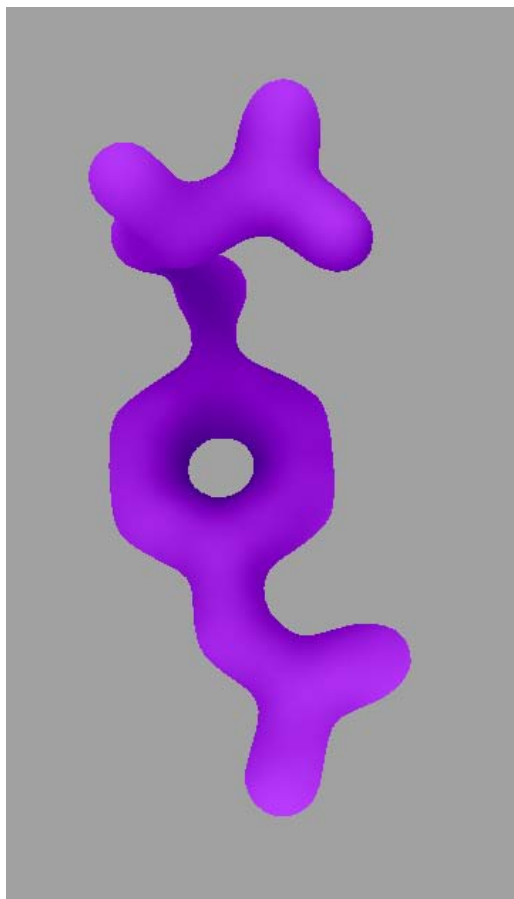
Acetaminophen Metabolism and Hepatotoxicity

Model Notes:

The Molecular Maya plug-in (http://www.molecularmovies.com/toolkit/index.html) will be used to create a molecular surface.

Structure Reference: PubChem CID_83998

APAP Glutathion

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APAP Mercapturate

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Model Notes:

The Molecular Maya plug-in (http://www.molecularmovies.com/toolkit/index.html) will be used to create a molecular surface.

Structure Reference:
PubChem CID_539698

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APAP Cysteine

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Model Notes:

The Molecular Maya plug-in (http://www.molecularmovies.com/toolkit/index.html) will be used to create a molecular surface.

Structure Reference:
PubChem CID_83997
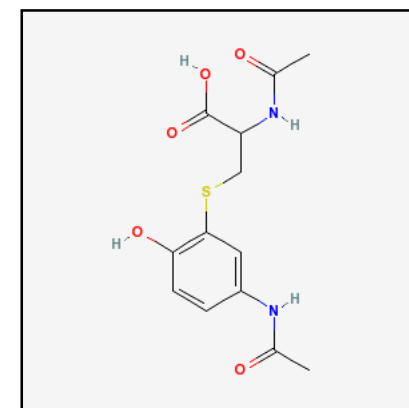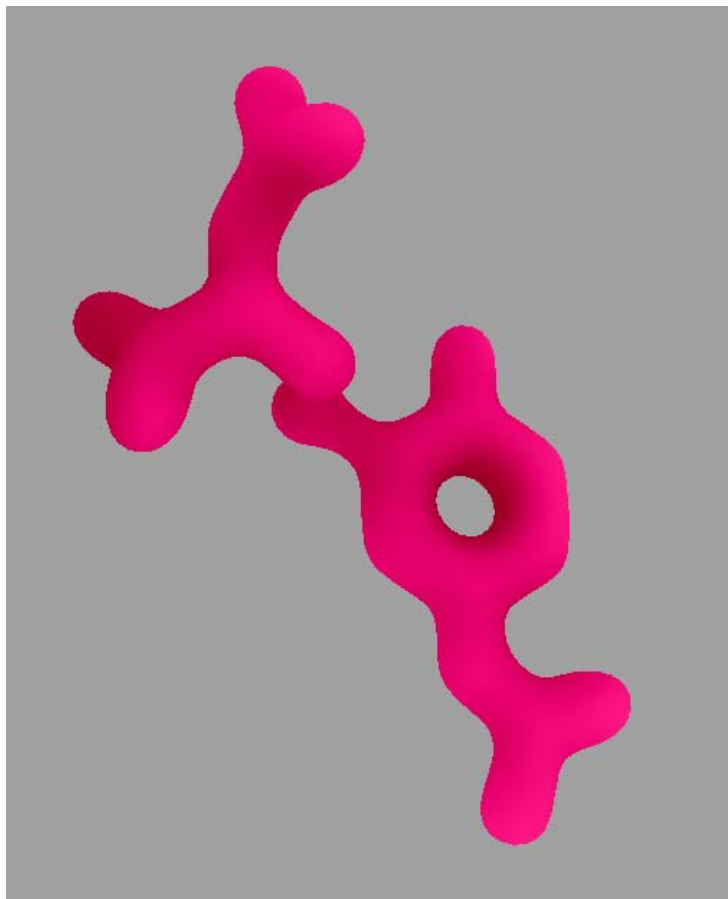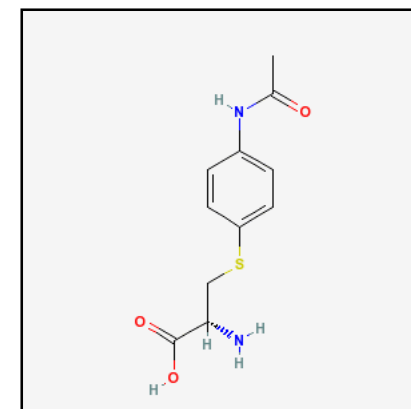
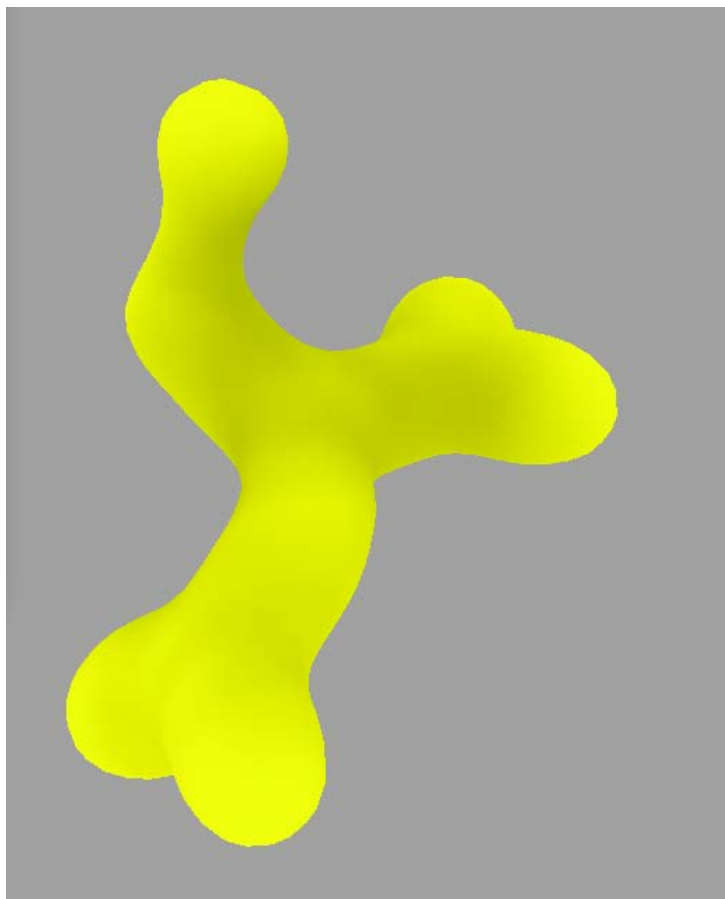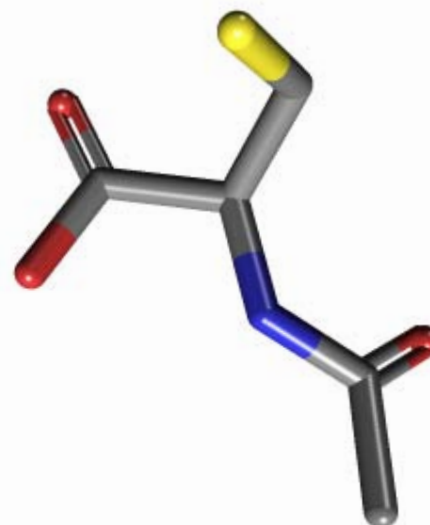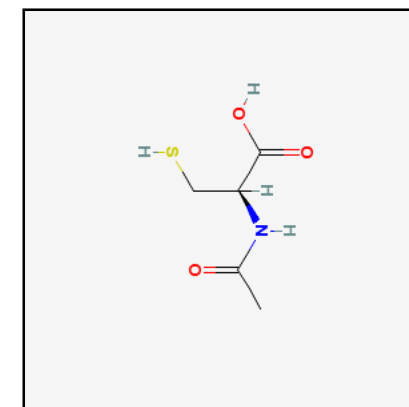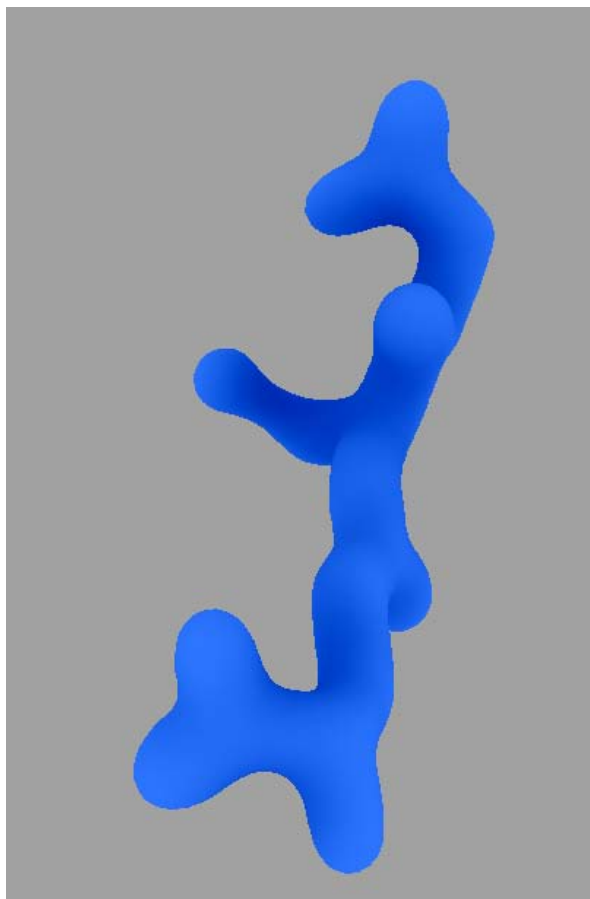## Acetaminophen Metabolism and Hepatotoxicity

N-acetylcysteine (NAC)

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Model Notes:

The Molecular Maya plug-in (http://www.molecularmovies.com/toolkit/index.html) will be used to create a molecular surface.

Structure Reference: PubChem CID_12035

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Glutathion (GSH)

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Model Notes:

The Molecular Maya plug-in (http://www.molecularmovies.com/toolkit/index.html) will be used to create a molecular surface.

Structure Reference:
PubChem CID_124886