THIS WEEK IN CHEMISTRY

1ST JANUARY 2017 – 7TH JANUARY 2017

Links to articles & studies for the featured stories are provided at: https://goo.gl/OWdjuR

RESEARCHERS DISCOVER HOW TOMATOES MAKE CHOLESTEROL

Cholesterol isn't just found in meats – it's also found in some plants. Researchers identified that tomatoes use 12 enzymes and 10 steps to turn the compound 2,3-oxidosqualene into cholesterol. The pathway shares enzymes with the one plants use to make phytosterols.

MANGANESE FUMES EXPOSURE INCREASES RISK OF PARKINSON'S

New research has suggested that welders exposed to manganese fumes below the current recommended safe levels show symptoms similar to those of Parkinson's disease. The study only estimated exposure from a job history questionnaire, however.

CHEMISTS EXPLORE ROADKILL FOR NEW DRUG CANDIDATES

Chemists are examining an unlikely source for new molecules: roadkill. Oklahoma chemists are swabbing dead animals to obtain their microbiomes. They hope to uncover molecules produced by the bacteria in these microbiomes that could act as drug candidates.

DEVELOPING PLASTICS FROM A CHRISTMAS TREE CHEMICAL

Chemists have developed a sustainable plastic from a chemical present in Christmas trees: pinene. They don't actually use Christmas trees as a starting material, however – pinene is also a paper industry waste product. So far the plastic has only been made in gram-quantities.

CHEMICAL BASIS BEHIND SENSE OF TOUCH UNCOVERED

A new study has found that 'rafts' of lipids on the cell surface contain enzymes in compartments. When these rafts are disrupted by touch, the enzymes are able to mix and react. This releases a chemical signal; it is thought that this is picked up by proteins that carry the message.