

# THIS WEEK IN CHEMISTRY

10<sup>TH</sup> MAY - 16<sup>TH</sup> MAY 2015

## VIAGRA COULD INSPIRE NEW ANTI-MALARIAL DRUGS

Malarial parasites spend some of their development in human red blood cells, which avoid being filtered out by the spleen. Viagra causes infected cells to stay stiff, rather than soft, allowing them to be removed. The discovery could aid synthesis of new anti-malarials.



## STRONTIUM IN SALMON EARS USED TO MAP MIGRATION

Otoliths, bone structures in the ear of fish, 'store' rare elements from the waters the fish lives in. The chemical composition of its layers depends on that of the water at the time, and traces of strontium isotopes can be used to accurately trace where salmon have been.



## POTENTIAL SUNSCREEN FROM FISH SKIN COMPOUND

New research found zebrafish produce a chemical, gadusol, which helps protect their skin from UV radiation. Using yeast, researchers were able to reproduce the compound, which could allow it to be used in sunscreen lotions and pills.



## DETECTING DRUG USE FROM A SINGLE FINGERPRINT

A new method uses a fingerprint to detect whether a test subject has used cocaine. Chemical metabolites of cocaine are present in fingerprint residue, and by spraying a solvent onto the fingerprint, their presence can easily be determined.



## BLOOD AS A RAPID INDICATOR OF RADIATION EXPOSURE

A new study showed microRNAs in blood respond to radiation. Analysis of miRNA levels distinguished between different radiation exposures in mice 24 hours after exposure. If the findings prove relevant to humans, they could form the basis of a diagnostic test.

